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ABSTRACT

Educational research has a fairly short tradition in Sweden. During the sixties, however, new research departments were established in several places in connection with schools of education, and larger sums of money for project research became available. An overview of current educational research in Sweden is presented here in three parts. The first part describes the thirteen major research departments now in operation and attached to schools of education or universities. The second part illustrates the research and development work in the educational field carried out through major local education authorities. The third part presents the operations of four central organizations for funding educational research in Sweden: the research bureaus of National Board of Education and the University Chancellor's Office, the Social Science Research Council, and the Bank of Sweden Tercentenary Fund. Besides describing how research is initiated, funded, and followed up, these reports from funding organizations also give some glimpses from research on education in departments other than those covered in the first two sections. (SK)

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educational and psychological interactions

Bjerstedt, A. (Ed.):

SWEDISH EDUCATIONAL RESEARCH
IN THE MID SEVENTIES

No. 54 December 1975

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SWEDISH EDUCATIONAL RESEARCH IN THE MID SEVENTIES

Åke Bjerstedt (Ed.)

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Twenty years ago little money was available in Sweden for educational research and development. During the sixties the situation changed: several new research departments were established, and larger sums of money for project research were made available, especially via the National Board of Education. The present survey report tries to give some glimpses from current activities. The presentation is in three parts. The first part describes the thirteen major research departments now in operation and attached to schools of education or universities. The second part illustrates the research and development work carried out through major local education authorities. The third part, finally, presents the operations of four central agencies for funding educational research in Sweden: the research bureaus of the National Board of Education and the University Chancellor's Office, the Social Science Research Council, and the Bank of Sweden Tercentenary Fund. For those who want to write to or visit the various research departments and other centers reported on, addresses are included throughout.

Keywords: Educational research. Sweden; research organization; research and development programs.

CONTENTS

Introduction 3

PART I

Gothenburg/Mölndal: School of Education 7
Gothenburg/Mölndal: University 15
Linköping: School of Education 18
Linköping: University 22
Lund: University 26
Malmö: School of Education 28
Stockholm: School of Education 36
Stockholm: University (1) 40
Stockholm: University (2) 43
Umeå: School of Education and University 47
Uppsala: School of Education 51
Uppsala: University 61

PART II

Gothenburg: Educational Development Office 66
Malmö: Educational Development in the Malmö Region 70
Stockholm: Pedagogical Center 76

PART III

Swedish Council of Social Science Research 83
National Board of Education 86
Bank of Sweden Tercentenary Fund 91
Office of the Chancellor of the Swedish Universities 95

INTRODUCTION

Educational research has a fairly short tradition in Sweden. Twenty years ago there were only four research departments and, with the exception of special grants in connection with school reforms, little money was available for educational research. Most of the research carried out consisted of small-scale studies (for doctorate theses etc.).

During the sixties the situation changed markedly. New research departments were established in several places, in connection with schools of education, and larger sums of money for project research, especially for projects with a clear orientation towards current school problems, were granted especially via the National Board of Education. Team projects replaced to some extent the earlier one-man and zero-man studies. In addition, the large communities and the laboratory schools attached to the schools of education have become increasingly involved in systematic educational development, including some long-term research endeavors.

This increased scope and diversity has made it rather difficult in recent years to get an overview of the field of current educational research in Sweden. Hence, some sort of survey, in English, of the organization and research activities of the various research departments has been asked for. The present report is a preliminary attempt to fill this need.

The presentation is in three parts. The first part describes the thirteen major research departments now in operation and attached to schools of education or universities. These are the centers of research training in education and in these centers most of the research projects funded with state grants are carried out. The second part illustrates the research and development work in the educational field carried out through major local education authorities. The third part presents the operations of four central organizations for funding educational research in Sweden: the research bureaus of the National Board of Education and the University Chancellor's Office, the Social Science Research Council, and the Bank of Sweden Tercentenary Fund. Besides describing how research is initiated, funded and followed up, these reports from funding organizations also give some glimpses from research on education in departments other than those covered in the first two sections.

For those who want to write to or visit the various research departments and other centers reported on here, addresses are included throughout. In addition, we have marked out the major places on the map of Sweden below.

The thirteen major research departments are located as follows: two in Göteborg (Gothenburg)/Mölndal, two in Linköping, one in Lund, one in Malmö, three in Stockholm, two in Umeå, and two in Uppsala. - All four funding organizations described have their main offices in Stockholm.

All the research departments publish one or (usually) several series of research reports and during recent years a substantial number of reports has been issued. The reader wanting to look for reports within his own interest areas is directed to a recent bibliography of such Swedish research reports from the last six-year period, including author index and subject index in English (Swedish educational research: A six-year bibliography. Studia psychologica et paedagogica, No. 28. Lund, Sweden: Gleerup, 1975).

Most of the texts included in the present report have been written in Swedish by representatives of the various departments and bureaus described. In a few cases, I have taken some editorial liberties in order to increase the consistency of format. Finally, these slightly edited self-descriptions have been translated into English.

I thank the various contributors of the basic texts as well as our translator, Mrs Gillian Nilsson, B.A. The Social Science Research Council has kindly paid for the translation.

The reader is invited to comment on the present report, especially with constructive advice for the purpose of a possible revised edition in the future. (And if you happen to be in Copenhagen - as many of you probably will - you are welcome to take the 35-minute hovercraft to Malmö for a chat with us on Swedish research over a cup of coffee.)

Malmö School of Education — November 1975
Åke Bjerstedt

PART I

GOTHENBURG/MÖLNDAL: SCHOOL OF EDUCATION

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Mölndal School of Education
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Organization and personnel

The decision-making body for departmental affairs is a departmental staff board. The Prefect of the department is chairman. All personnel working in the department are members of the staff board, in accordance with the School of Education Act. In addition other personnel are called in when matters that are of importance to them are being dealt with.

The teaching in education is administered by a director of studies. There is one head teacher in education for each teacher training line: the class-teacher line, the subject-teacher line, the remedial-teacher line and the vocational-training line. The teaching is carried out by teachers with graduate and post-graduate qualifications in educational science and there is in addition a teacher's assistant. A number of research projects are linked to the department. There is a research secretary who helps with the administration of the projects. General issues concerning the research are dealt with and decided on by a project leader group, consisting of all the project leaders. Also employed on the research side are research assistants, office staff, and assistants for calculation and marking. More important mutual questions concerning research and teaching are dealt with by the departmental group staff board, which has representatives from the departments of educational research of both Gothenburg University and the Mölndal School of Education.

Some questions are prepared by committees elected by the departmental staff board. Some examples are: the committee of the departmental seminar, the committee for academic courses, the library committee, and the editorial committee.

In the autumn term of 1975, 57 persons are associated with the department, consisting of the following:

1 professor	9 project leaders
1 research secretary	16 research assistants etc.
15 lecturers (perm. + temp.)	4 office workers
4 graduate teachers	1 programmer
1 departmental assistant	5 archive assistants

Current research program

Although no conscious direction of trends in the research has been exerted within the department, a number of fields of interest have emerged. The school research projects conducted at the department are presented briefly below and have been grouped according to the fields of interest mentioned above.

Preschool research

The process of socialization in the preschool

Interest in teaching and educational research is being focussed increasingly on the child's social adjustment and the development of his/her personality. During the preschool years the child starts to become aware of the basic social values and to gain insight into different people's qualities, motives and relations. The aims of the project are: (1) to develop approaches and methods intended to train the insight of 5-6 year-old children into the motives, feelings and reactions of themselves and others and (2) to train them in group activities in which cooperation, role-sharing and goal-related behaviours are stressed. By creating awareness of motives and feelings both in themselves and in others and by making the child feel that these motives and feelings are accepted, the child's self-esteem and feelings of personal value are increased. - The project was started in the spring term of 1972 and will be completed in the autumn term of 1975. The project has received financial backing from the Swedish Board of Education.

Dialogue in the preschool

Continuing from earlier studies involving methodological experiments, observation and interview studies of preschool teachers' educational approach, attitudes to and experiences of their professional role, the project aims at developing the dialogue working model. The goal of this model is to shape the learning situation into an emotional and social experience that will encourage motivation and promote not only the child's cognitive concept formation but also his ability to take initiatives and to think independently, his social insight and ability to cooperate. In connection with this, studies will be made of the direct and indirect process of communication. The study is planned to take two years. Measuring instruments tested earlier will be revised and the work will be evaluated during the second year. The study will be made in a relatively small number of preschool groups with 5-6 year-old children. The results will include models for preschool teaching in accordance with the dialogue method. - The project was started in the autumn term of 1975 and should be completed in the spring term of 1977.

Funds have been received from the National Council for Social Science Research. Project leader: Docent Gunni Kärrby.

Remedial education in the preschool

In the work done by the community for deviating and handicapped children, the emphasis is placed on those of school age. The school's remedial teaching consists of a developed and differentiated system of supportive measures. Corresponding arrangements hardly exist for preschool children. The only younger children receiving educational-social-medical help are those with very serious handicaps. This help reaches only a small number of the children who would benefit from special measures.

The work done within the project so far has included a survey of earlier research, a survey of methods for early diagnosis and the testing of special support programs for mentally retarded and physically handicapped preschool children. The continued work of the project will be concentrated on developing, in cooperation with the social services in one municipality, strategies and methods for early identification of children at risk and subsequent measures. - The project was started in the autumn term of 1974 and should be completed in the spring term of 1978. Grants have been received from the Swedish Board of Education. Project leader: Professor K.-G. Stukát.

Mapping linguistic skills and social adjustment in immigrant children in the preschool

During recent years problems and difficulties connected with the teaching of immigrant children have attracted special attention from the school authorities in Sweden. Many students have been unable to follow the teaching, even though they appear to understand and command the Swedish language in everyday situations. The explanation of the immigrant children's low achievement in school is that only very few of them are really bilingual. The majority are doubly semi-lingual and thus do not command either their native language or the Swedish language properly. Insufficient attention has been paid to the importance of the development of the mother tongue for the immigrant children's ability to achieve on their true intellectual level. In July 1971 the Swedish Social Welfare Board appointed a working party for experimentation with preschooling for immigrant children. The purpose of these activities has been to gather information on how the preschool should be organized and the approach to the work adapted in order to give immigrant children support in their social, emotional and intellectual development.

The work of the project involves evaluation of the approaches and methods used in some of the thirteen municipalities included in the experimentation.

The evaluation has been done by means of (1) questionnaires to teachers, native-language trainers and parents, (2) testing of immigrant children's active and passive vocabulary in Swedish and the native tongue, and (3) interaction studies of sibling groups in small day nurseries in which immigrant children are included. - The project was started in the spring term of 1973 and will be completed in the autumn term of 1975. Grants have been received from the Swedish Social Welfare Board. Project leader: Fil. kand. Gunilla Svensson.

Swedish Childrearing Project: A longitudinal study of children growing up in different environments - day nursery and the home

We have only very limited knowledge of the long-term effects of day nursery care on the development of children. Existing research has concentrated largely on direct effects on development, without describing systematically the conditions involved in growing up in the different environments that have been studied. It is only more recently that techniques have been worked out that make it possible to describe the child's daily experiences. Another limitation is the absence of any attempt to follow up the children that have participated in the studies. The Swedish Childrearing Project is an attempt to take these factors into consideration and the idea is to follow a number of children from the age of one until they become adults.

The main purpose in phase 2 is to describe and compare social interaction patterns in the different environments, to compare general development and to measure the effects of day nursery care on the child's orientation to adults and peers. In addition, information is to be gathered concerning the design of the environment, daily routines and social contact net in order to get an overall picture of the world in which the child grows up. The attitudes of parents and day nursery staff to certain childrearing questions will be collected, and the children in the different groups will be compared with regard to their views of adult roles. - Data will be collected by means of direct observations of social interaction patterns, tests, interviews with parents and day nursery staff and puppet acting situations.

Phase 2 of the project was started in the autumn term of 1974 and will be completed in the autumn term of 1976. Project leader: Moncrieff M. Cochran, Ph. D. and Fil. kand. Lars Gunnarsson.

Language research

GUME/Test 2: Teaching methods in English

The tasks of the project are partly purely productive, partly of a research nature. When the Swedish Board of Education decided to work out new stand-

ard tests in English for the basic school, emphasis was placed on the importance of following developments during a number of years and trying to get an idea of the results of the school's language teaching as a whole. There was also a desire to try out new types of tests and to try to map in more detail the entire language proficiency. - The project started in the autumn term of 1974 and will be completed in the spring term of 1978. The project is being financed by the National Board of Education. Project leader: Lektor Torsten Lindblad.

Modern languages in the teaching of adults and immigrants

Two studies are planned. One is being conducted at the Municipal Upper Secondary School for Adults in Gothenburg and concerns the mapping of the effects of basic school courses in English with one lesson per week - a type of course that the Gothenburg school has increasingly gone in for. The other study is being carried out at the Extra-Mural Department of Gothenburg University and aims at investigating the advantages and disadvantages of linguistically homogeneous and heterogeneous study circles in Swedish as a foreign language. - The project was started in the spring term of 1975 and should be finished during 1976. Funds have been received from the National Board of Education. Project leader: Docent Mats Oskarsson.

Research in the basic school

Physical education in the basic school

A study of goals and methods in relation to the students' physical development and interest in physical exercise. One aim of the project is to analyze existing goal documents for the teaching of physical education by means of a goal taxonomy. In addition an analysis of demands is planned. The purpose of this is to analyze the views of various experts and other interested parties concerning the goals of the physical training given at school. Another purpose is to map the motor and physiological activities of the student and to study some background variables that are assumed to be relevant to the child's participation in sports. - The project was started in the spring term of 1972 and will be completed in the autumn term of 1975. The project is backed financially by the Swedish Board of Education. Project leader: Senior lecturer Göran Patriksson.

Self-conception when starting school with particular focus on children with learning difficulties

When starting school the child is confronted by a set of new social factors, while at the same time factors associated with the home change. This results

in emotional experiences that are partly of a new nature. The series of new and demanding situations, especially with the emphasis on intellectual achievement, with which the child is faced can have a radical effect on its self-conception. This is a problem which comes to the fore primarily in students that for different reasons have learning difficulties. - The project started in the spring term of 1973 and will be completed 1975/76. The project has received funds from the Swedish Board of Education. Project leader: Fil. lic. Eva Stigebrandt.

Integration into the school of disabled students

The aim of the study is to illuminate the possibility of disabled children being integrated into normal schools, both in ordinary classes and in special classes for the disabled. The study intends to describe in a comparative study the school situation of a disabled student and the way in which this affects his teacher and classmates and to cast light on the possible effects of the school placement on the disabled child's treatment and leisure situation. The primary purpose of the investigation is to help bring about an improvement in the principles of selection that govern the choice of schools for disabled children. - The project was started in the spring term of 1974 and will be completed in the spring term of 1977. Grants have been received from the Swedish Board of Education. Project leader: Fil. mag. Karin Paulsson.

Social integration between the basic school and the basic school for (mentally) handicapped children (The Hovhult School in Uddevalla)

The local education authority in Uddevalla and social welfare authorities in the county of Gothenburg and Bohus are cooperating with the department of educational research at the Mölndal School of Education in evaluating the social integration between students from the basic school and from the basic school for handicapped children at Hovhult School in Uddevalla. The purpose of the project is to investigate 1) how social integration takes place between the basic school and the basic school for handicapped children, 2) how social integration can be improved by e.g. providing a good selection of mutual activities and increasing the contacts between different groups of people working in the school and between home and school, 3) how the effects of social integration affect the total situation of students at the school for handicapped children. - The project was started in the spring term of 1975 and will be completed in the spring term of 1977. Financial backing has been received from the Swedish Board of Education. Project leader: Fil. kand. Bengt Ågren.

Research into children's culture

Studies of the problems involved in translating books for children and adolescents

Neglected and important items for translation

This subject is being studied by means of a survey of some foreign books for children and young people, one or two of which are to be from the other Nordic countries. Cooperation with reference groups in these countries is planned. The project cannot translate or publish books, but it can stimulate greater attention to the problem and make recommendations concerning the translation of certain books.

Study of the quality of existing translations

There are two ways of examining the quality of a translation, by studying how readers react to the book in its new language and by making a detailed comparison of the translation and the original version to see how much has been lost, changed or misunderstood. Of these two methods the latter is less subjective and provides the kind of information that is most difficult for people working actively in the field to obtain by themselves. The project intends to make such comparisons for a relatively large number of translated books. The result is intended to function as a prototype for how information concerning translated literature for children and adolescents can be conveyed to teachers, librarians etc. - The project has been started during the autumn term of 1975 and will be completed in the spring term of 1976. Grants have been obtained from the National Council for Social Science Research. Project leader: Docent Göte Klingberg.

Teacher training

A process study of preschool teacher training

The State Preschool Committee of 1968 suggests in its report a large number of organizational and practical measures. If these are put into practice, they will lead to radical changes in the organization of the Swedish preschool, its way of working, the training of the teachers and its relation to other institutions in the community. The aims of the project are:

- to work from the central ideas in the State Preschool Committee's report and test the consequences of these recommendations in preschool teacher training and in-service training with regard above all to ways of working and methodology,
- to use analysis of the experiences gained from the State Preschool Committee's experimentation and the intensive study of the preschool made by the project to identify the factors that facilitate or hinder the implementation of the preschool reform,

to use the analysis mentioned above and the methods worked out by the KUL-K project for evaluation of the educational system to create instruments for the evaluation of preschool teacher training, with special emphasis on what have been identified as obstacles etc.
to carry out an evaluation of the preschool training that should lead to recommendations for an improvement in the teaching.

During the school year 1973/74 a careful mapping was made of studies made earlier of preschool teacher training, as a foundation for this future work. The work described above will be done in cooperation between the departments of educational research at the Mölndal and Stockholm Schools of Education. - The project was started in 1973/74 and will be finished in 1976/77. The project is being financed by the Swedish Board of Education. Project leader: Fil.mag. Jan-Erik Johansson.

Report series

A. Swedish reports from the department of educational research at the Mölndal (Gothenburg) School of Education. Contain above all project reports.
B. English research bulletins. Above all project reports.
C. Essays from the department of educational research, Mölndal (Gothenburg) School of Education. In Swedish or English. Contain short papers both from projects and other researchers and teachers associated with the department.

A more detailed description of the projects is to be found in the essay series.

GOTHENBURG/MÖLNDAL: THE UNIVERSITY

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Professors: Urban Dahllöf, Kjell Härnqvist
Prefect: Allan Svensson
Director of studies: Sven-Eric Reuterberg

From the very beginning, the research done at the department has largely focussed on current problems connected with the reforms being implemented at different levels of the Swedish educational system. Researchers at the department have carried out studies in connection with e.g. the 1957 school commission, the 1960 gymnasium committee, the university education committee, the 1968 higher education committee (U 68), the study material committee, and the committee on the internal work of the school (SIA). In more recent years the most important assignments have come not from the committees but from the departments of educational development work within the National Board of Education and the Office of the Chancellor of the Swedish Universities.

Many assignments have originated from investigations initiated by the researchers themselves, which have been found to be relevant for more goal-oriented research. Conversely the commissioned research has often led to theoretical ideas that have been further developed in studies financed by e.g. the Swedish Council for Social Science Research and the Bank of Sweden Tercentenary Fund. As a result the researchers at the department see no marked difference between the two types of research other than the financial side.

As new researchers have been trained and employed by the department, the researchers have formed groups that have specialized on certain areas. This sub-division does not consist of a formal organization, but is rather a spontaneous grouping around tutors and projects. The groups that are active at present will be described below, including the names of the professors and docents who have functioned as group leaders.

Current research program

Individual differences and choice of education

The group is studying the students' prerequisites for utilizing education profitably and places the students' choices in relation to these prerequisites and

to various factors in the students' home environment. These studies have concentrated on two national samples, in which students born in 1948 and 1953 respectively are followed from the age of 13 and onwards. The methods used to describe student qualities are, in addition to conventional tests of intelligence, knowledge and interests, qualitative measurements of concept developpment and creativity. A new line of development is to study the interaction between student qualities and teaching methods, aiming primarily at individualization of the teaching. - Group leaders: Kjell Härnqvist, Björn Sandgren, and Allan Svensson.

Process analysis of the educational system

The group emphasizes strongly the connection on the macro-level between given goals and frames for the education and the course and results of the teaching process. These theoretical starting-points are applied within a number of educational sectors. The group's main project so far, Comparative goal and process analyses of the school system (COMPASS), has assembled its material from the teaching in the upper secondary school of certain subjects that have been subjected to detailed registration and analysis. Another project concerns the course and effects of teaching in experimentally organized high-school levels (grades 7-9) without division into grades in some sparcely populated districts, where the evaluation of results involves not only the students' achievements and attitudes but also the role of the school in the immediate community. The basic theoretical principles have also been applied to problems within university education, adult education and vocational training. - Group leader: Urban Dahllöf. Ulf Lundgren (now in Stockholm) has also been a member of this group.

Educational technology

This heading gathers together a number of projects that apply approaches of educational technology to questions concerning goal-precision, the construction of study materials, the selection of media and methods in the teaching. From these points of departure the group has worked out models for the teaching of social studies in the grade 7-9 level of the basic school. The attempt to define the goals for this subject more precisely focussed attention on the overall goals which in addition to the hard knowledge goals are stated for the school as a whole. This led to a closer study of these broader goals and the prospects for their realization. The group's work with media and methods can also be regarded as an attempt to apply the principles of educational technology to goals and teaching material of a more complex nature than before and means a liberation from the behavioristic orientation that has characterized much educational technology. - Erik Wallin (now in Uppsala) has been the leader of

Adolescence research and socialization

This group has a socio-psychological orientation, and the problems revolve to a large degree around the possible existence of a special "adolescent culture" and the influence of the peer environment versus the home on behavior, attitudes and values. The development in these respects in the 14-16 age group was studied first in a project encompassing a few grades in Gothenburg. Thereafter the same persons have been contacted in their twenties in a project particularly aiming at illustrating the so called generation gap between young people and their parents. The problems involved have also been followed backwards in current studies of the socialization process in school, where among other things the possibility of using peer influence to promote the school's goals is being investigated. - Bengt-Erik Andersson (now in Stockholm) has been the leader of this group.

Learning research and university studies

The group's main project at present concerns study skills in university students. The starting-point is that the traditional psychology of learning does not provide sufficient information about learning under "natural" study conditions. One of the results is that advice on study techniques based on this has not proved to be particularly valid. For this reason an attempt is being made to build up from the bottom a theory and methodology for the description of knowledge and study skills and to develop methods for influencing study skills. The group is also conducting experiments involving university studies in working groups. Together with the Department of English, the group has earlier carried out two relatively large projects on the measurement and development of linguistic skill in English. - Group leader: Ference Marton.

These days the research training given by the department is largely linked to the work within these groups, which arrange courses and special seminars within their research fields and tutor students from the C level in the basic degree course and upwards.

Publications

The departmental group for educational research publishes the monograph series Göteborg Studies in Educational Sciences, in which the majority of the works published consist of doctoral theses.

In addition the department publishes four series of reports:

Swedish-language reports ("blue series")
English-language reports ("brown series")
licentiate theses ("green series")
psychology degree papers ("orange series").

Moreover some projects have published their own report series.

LINKÖPING: SCHOOL OF EDUCATION

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The department also has premises at the following addresses:
Klostergatan 45, 582 23 Linköping (teaching)
Storgatan 20, 582 23 Linköping (research)

Some general facts about the department

Professor: Ingvar Werdelin
Ass. Professor: Eve Malmquist
Administrative head: Ingvar Werdelin
Director of studies: Hans Burgman

When the Linköping School of Education opened during the autumn term of 1968, the department of education had only a teaching section. Following the appointment of Professor Ingvar Werdelin, research work was started during the spring term of 1970. A certain amount of research had been done earlier through the activities of the National Experimental School being transferred to the School of Education in 1969.

The department of education is responsible for the teaching in education as follows:

class teacher line - at present approx. 520 students
subject teacher line
general course - at present approx. 140 students
People's High School (Folkhögskolan) teacher course - at present approx. 64 students
(applies to the spring term of 1975)

During the school year 1975-76, 14 research projects are in progress. At present the department has 35 employees working at least half-time.

The research program of the department

Several of the department's research projects are focussed on teacher training, adult education and communication skills.

Teacher training

The project "Qualitative evaluation of teacher training, subject teacher line" (KUL-Ä) attempts both to describe the content and design of the teacher training and to provide a basis for new methods in the evaluation of the training system.

The project "Qualitative evaluation of teaching service, subject teachers"

(KULT-Ä) is studying the variables connected with so called teacher success. These are to be related both to the content of the teacher training and to concepts in terms of "satisfaction" in the teaching profession etc. The project is working with two types of data, with questionnaires and tests on the macro-level, and with intensive studies in small groups on the micro-level.

The project "Models for in-service training for teachers" is aimed at developing and testing by means of intensive studies

1. the working models for the recurrent one-day in-service teacher training drawn up within the SAL project and
2. the organizational forms for increased teacher participation in the planning of in-service training that have been reported within the Study-day project.

Adult education

The aims of the project "Study and vocational orientation within adult education, SYO-VUX" are to:

1. Develop methods and models for study and vocational guidance within adult education with regard to
   - information to adults about training opportunities, coordination of information
   - the inclusion of study and vocational orientation (svo) in outgoing (recruitment) activities
   - preventive and follow-up measures regarding study drop-outs
   - the planning of studies for adults
   - consultation between working-life and adult education prior to the planning of vocational training.
2. Try out experimental models using the svo resources of the municipal adult education committee, including all the organizations arranging education for adults.
3. Describe the present working situation, including tasks and methods of svo officers within adult education.

Two recently initiated projects take up questions concerning goal analysis and the evaluation of different forms of adult education.

The project "Internationalization of general education activities" discusses the strivings towards internationalism within the people's high schools (folkhögskolan), the adult education associations and the libraries. The goals are to be studied, the current situation examined, models for innovation built up and an evaluation made.

The project "Primary and secondary goals in adult education" tries to analyze relations between different kinds of goals and to find new ways of evaluating adult training courses in relation to these various aims.

Communication skills

The project "Investigation of the effects of systematic teaching of reading and writing in the preschool" aims at studying the effects of systematic teaching of reading and writing to six-year-olds in the preschool, compared to ordinary preschool activities without the teaching of reading and writing.

The LÄSK project is engaged in mapping certain fundamental skills in reading, writing and other forms of communication in children and adolescents between the ages of 7 and 19. The project also aims at evaluating these skills in relation to the goals set up for the basic school and the upper secondary school with regard to skills in reading, writing and other forms of communication. - The LÄSK project is being followed-up at the adult level, the VUXENLÄSK project, and a study made of the reading and writing skills of randomly sampled groups of 25 and 35-year-olds.

In the project "Linguistic development and social influence, SOSP", a study is being made of the linguistic competence of adolescents in the 13 to 16 age group in relation to their present social status and to their linguistic ability and social status nine years previously.

The aim of the project called "Design and trial of diagnostic tests in Swedish and mathematics for the middle level of the basic school, KRIM" is to construct and try out tests of factual knowledge for the middle level of the basic school, intended for prison internees.

Other projects

In the project "Studies of factors in the problem-solving process", a study is being made of changes in the ability structure under different conditions and of how the ability to solve problems is dependent on various factors. Special interest has been focussed on the importance of pupil activity in the learning of mathematics.

The project "Education in under-developed countries" is studying prerequisites for and the problems involved in introducing educational innovations into under-developed countries, particularly in North Africa and the Middle East.

In the project "Study situation and professional career" a group consisting of students who received psychological examination and advice as a result of study problems in 1956-59 is compared to a randomly sampled group of students who began their studies in the same year. The project is to make comparisons between the groups, regarding certain basic data, interrupted studies, examination and professional career. The two groups (150 and 100 individuals respectively) have been followed through academic

statistics and other official statistics up to the year 1972.

Reports

The department of education has published research results both in stencilled project reports and in an offprint series. Summaries of research results are to be found in the National Board of Education's project sheets "Information on school research". Together with the University of Linköping, the department publishes a series of monographs "Linköping's Studies in Education" in English, including also doctoral theses.

Appendix:

Projects at the Linköping School of Education: financial year 1975/76

Projects	Scientific leader Head of project
Qualitative evaluation of teacher training, subject teacher line, the KUL-Ä project	Prof. Sixten Marklund Lektor Thord Erasmie
Qualitative evaluation of teaching service, subject teacher line, the KULT-Ä project	Lektor Karl Henrik Eriksson Lektor Thord Erasmie
Models for in-service teacher training	Lektor Harald Eklund Fil.kand. Tomy Carlberg
Study and vocational orientation in adult education	Lektor Harald Eklund Fil.kand. Håkan Hult
Investigation of the effects of systematic teaching of reading and writing in the preschool	Prof. Eve Malmquist
Investigation of the development of certain skills in reading, writing and other forms of communication in the 7-19 age-group, the LÄSK project	Prof. Eve Malmquist Fil.dr. Hans Grundin
Investigation of reading and writing skills in adults, the VUXENLÄSK project	Fil. dr. Hans Grundin
Study situation and professional career	Lektor Karl Henrik Eriksson
Linguistic development and social influence	Lektor Thord Erasmie
Studies of factors in the problem-solving process	Prof. Ingvar Werdelin Lektor Ulla Holm
The internationalization of general education activities	Prof. Ingvar Werdelin Lektor Olle Kylhammar
Primary and secondary goals in adult education	Prof. Ingvar Werdelin Fil.lic. Alger Klasson
Education in under-developed countries	Prof. Ingvar Werdelin
Construction and try-out of diagnostic tests in Swedish and mathematics for the middle level of the basic school, the KRIM project	Lektor Thord Erasmie Fil.kand. Håkan Hult

LINKÖPING: THE UNIVERSITY

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Some general facts about the department

The department was started in the academic year 1971/72, with teaching on A and B levels. From 1972/73 teaching on C and D levels was also initiated, together with researcher training. The researcher training is given in cooperation with Linköping School of Education's department of educational research, within the departmental group for education.

The present number of students (autumn 1975) is approx. 300, 40 of whom are on C and D levels and 40 accepted for researcher training. A total of 20 teachers and researchers are employed in the department. The two professors of education at the School of Education employ part of their statutory teaching hours in the researcher training and in the tutoring of post-graduate students. Otherwise there is only one teaching appointment, that of senior lecturer. Despite the youth of the department, a relatively extensive program of R&D work has been initiated. The teaching section of the department is organized as follows:

Prefect: Lars G. Bäckström
Director of studies: Peter Nilsson
Examiner for researcher training: Ingvar Werdelin
Further there is a course director for the three vocational courses (A5, AB1 and B4) in the technology of teaching.

The department's R&D work

The R&D work of the department is concentrated on problems concerning the planning of teaching and the development of study materials for adult education. In addition, there are other projects dealing with patient education and with the psychology of learning. The projects dealing with teaching planning and study material development function in principle as a single unit, i.e. each has a project leader who is responsible for the work done but are coordinated since all those working on the projects participate in the discussions of each individual project. Furthermore, the projects have a common scientific leader (Ingvar Werdelin) and research leader (Lars G. Bäckström).

The projects are supported financially by the National Board of Education, the Nordic Cultural Secretariat, the Office of the Chancellor of Swedish Uni-

versities, the National Council for Social Science Research and the Board of Social Welfare.

Project descriptions

Nordic Adult Education Project

This is a project in the field of adult education in which the Nordic countries are cooperating. The project has been conducted since January 1971 by a working group consisting of representatives of Denmark, Finland, Norway and Sweden. The economic and administrative principal for the project is the Secretariat for Nordic Cultural Cooperation. The aims of the project are two-fold, namely to develop and test the practical applicability of models for systematic planning in adult education, and to develop a study material package of the multi-media type for use in adult education. The final report will include a discussion and evaluation of the project and its organization (as an educational R&D project on a co-Nordic basis) plus an attempt to evaluate the planning models that have been applied in the work of the project. - Project leaders: Per-Erik Ellström and Bruno Vilkancis.

Selection of methods and media within adult education

The project was started in 1972/73 and is intended to be completed in 1975/76. The project is working on the development and try-out of a model for arranging teaching and learning situations (selection of combinations of methods and media). - Financing authority: The National Board of Education. Project leader: Carl Holmberg.

Methods and educational materials in Labor Market Vocational Training

The main aim is to establish basic methods for the systematic evaluation, selection and design of teaching, learning and material within the field of labor market vocational training, paying special attention to the organizational framework, prior conditions of course participants, and the educational objectives of social and vocational ability. Part of the intended outcome should be models for analysis and the determination of methods and media, supplemented by empirical criteria concerning different training situations. - Financing authority: The National Board of Education. Project leader: Peder Sveland.

Analyses of costs and results within adult education

Started during 1972/73, to be completed during 1975/76. Taking the study course as the analysis unit, the project attempts to discuss costs (for the individual, organizer, society) in relation to the outcome. By outcome is meant here primarily direct results of the education, also taking into con-

sideration results other than the purely cognitive ones. - Financing authority: The National Board of Education. Project leader: Odd Pedersen.

Evaluation of vocational courses arranged by the universities

The project was initiated in 1972/73 and completed during the autumn term of 1975. The main purpose was to describe the background data of students who registered for a vocational course for the first time in the autumn term of 1971 or the spring term of 1972 and who completed the course with satisfactory results. The secondary aim was to study the situation of the students during and after the course and find out to what extent the intentions formulated by the delegation for vocational training at the universities concerning the design and effects of the course have been realized. Postal questionnaires were sent to 1,624 of the 3,043 students included in the population. The final report was presented in September, 1975. - Financing authority: Office of the Chancellor of the Swedish Universities. Project leader: Odd Pedersen.

Study of the information value of pictures

The project is intended to study the conditions under which the use of pictures in study material has an optimum effect on cognitive goals and other results. We also intend to study how the characteristics of individuals and pictures influence the dependent variable 'learning'. - Project leader: Peter Nilsson.

Information and training for patients

The projects aims at studying and developing different forms of information and training for patients. In this context important questions are: How great a need is there for information and training? What methods and media are suitable? What priorities should be given to different illnesses (health areas)?

An empirical study has been made in which the effects of different study materials (transparencies, TV, printed study material) have been studied. (Koch & Nisses, "Evaluation of study materials within the project on information to patients". Report No. 6, Department of education, Linköping University.) An analysis of the educational needs of diabetics has also been made.

In an extension of this project, experimentation is planned to test the study materials that have been developed in different teaching situations for diabetic patients. - Financing authority: National Board of Social Welfare. Project leader: Margareta Jonsson.

The Concept Learning Project

When students practise examples of a principle to be learned, it is usual to supply them with information as to whether or not their answers are correct

(Criterion Information). Criterion Information may be given after each solved practice item or it may be withheld until all or a substantial part of the items have been worked through. In the former case the Criterion Information is distributed over the learning material, and in the latter case it is massed. - In a series of experiments Criterion Information has been combined with a variable named Principle Information. The two levels chosen are known as the Discovery method and the Direction method. The designs were factorial. Pupils in their twelfth year of age served as subjects. The learning material consisted of a principle stating how words are formed in a micro-language based on Arabic and of examples of this principle.

The results yielded an interaction effect between the two variables, indicating that the Direction method should be combined with either distributed or totally massed Criterion Information. The Discovery method benefits most from a combination with an intermediate degree of massed Criterion Information. The analysis of variance showed Criterion Information to be a more powerful determinant of behavior than Principle Information. - In the discussion of the experiments it was hypothesized that a theory of hypothesis-testing could explain the findings. This notion has been preliminarily investigated, and a thorough test of this hypothesis is at present being undertaken. - Project leader: Ulla Holm.

Reports

The department publishes its research results in its own report series in Swedish and, in cooperation with the department of educational research at the School of Education, in a common English-language report series.

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Some general facts about the department

In 1911 a chair of Psychology and education was instituted at the University of Lund, though the degrees granted by the department were in education. With an increasing number of students, it became necessary to divide the subject known as education and in 1956 the chair became two: one in education and educational psychology and one in psychology, psychology thus being introduced as a degree subject. The department of education expanded greatly during the 1960's and reached about 1,300 students. Since then there has been a considerable drop in the number of students at the undergraduate level. There are about 100 students doing research work. The teaching covers the basic courses for 20, 40, 60 and 80 academic points, courses for psychologists, and research training. The academic head of department is Professor Ingvar Johannesson and the administrative head Per Anders Westrin, senior lecturer. Approximately 35 people are employed in the department.

The research program of the department

The research being done by the department of education is focussed on different problem areas.

Historical research underway concerns the development of the teaching of English in Sweden as well as different models for maternity education.

For the past few years a longitudinal collection of material illuminating child development in an urbanized society (that has been gathered in cooperation with a research group working at a children's clinic in Stockholm) is being processed by the department. The problems that have been studied particularly within the project are the development of the structure of intelligence and its relation to the home environment. Another sub-project is studying the problem of the development of inter-pupil relations in the school.

Another longitudinal investigation deals with children's verbal ability. One of the purposes of this study is to construct an instrument for diagnosing the speech of four-year-olds.

In recent years a considerable part of the department's research pro-

gram has been devoted to studies of children who are handicapped in various ways, with the aim of designing educational methods and measures that can provide a more adequate education for these children. The National Preschool Committee has commissioned a study of handicapped children in the day nurseries in Malmö. Another project whose main purpose was to investigate the problems and integration of handicapped children into the basic school has just been completed.

One project deals with models for bilingual teaching of immigrant children. On the suggestion of the National Board of Education, this project has been incorporated into an international study of "Bilingual - bicultural Education", initiated by the state of Connecticut in the United States. The main emphasis of the study has been placed on the linguistic development of Finnish children between the ages of 5 and 10 and their achievements in the first three years of the basic school.

For a number of years the department has been involved in a study of the development of children living in a high-rise housing area compared to that of children living in one and two storey houses. The investigation has been carried out in several housing areas in Malmö. Another project is underway in Eslöv, the purpose of which is to examine the forms for cooperation between home and school in the basic school.

Yet another type of research deals with university teaching. One project is focussed on studies concerning the value of different teaching methods, where different investigations attempt to anchor the research theoretically. Another project is occupied with problems within university teaching related to the gap between theoretical education and practical professional work and goes under the name of client-related counselling. Teaching situations involving the triad counsellor-student-client are here studied with regard to the training of dentists, doctors and psychologists.

In a project called "Two-way communication in correspondence education" an experiment is being carried out into the importance of two-way communication by post with written assignments to be sent in, telephone instruction and group meetings as supplements to postal education. The research is being done in cooperation with the European Home Study Council.

The results of the research are given in stencilled reports. Information on the various projects is also in some cases available in project sheets from the National Board of Education and the Office of the Chancellor of Swedish Universities.

MALMÖ: SCHOOL OF EDUCATION

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Organization and personnel

The second Swedish school of education was placed in Malmö, and the Department of Educational and Psychological Research there started work in 1962. The main tasks of the department are research and development work associated with educational problems, participation in teacher training, and the training of researchers in education.

As in the majority of parallel departments, there is only a small long-term organization for research (in addition to a professor and an associate professor, there is a research coordinator with predominantly administrative duties and 3,000 hours per year allotted for the employment of research assistants). The number of project researchers (project leaders, experts, assistants) employed on a short-term basis normally constitutes a much larger group (about thirty persons at present). Thus the research is mainly conducted in the form of projects, financed by the Swedish Board of Education among others. For a number of years the projects of the department have been grouped in four informal "sections": material-oriented research, teacher-oriented research, student-oriented research, and environment-oriented research (cf. below).

The scientific tutors (researchers with a minimum qualification of 'docent') are Bernhard Bierschenk, Åke Bjerstedt, Kurt Gestrelius, Bernt Larsson, Ebbe Lindell, Horst Löfgren, and Olof Magne. Åke Bjerstedt is professor and prefect; Ebbe Lindell is associate professor; Bengt Nilsson is research coordinator.

The teaching in education covers the training of student teachers taking various courses (at present approx. 1,300), school-oriented courses in education as part of the basic university education, and researcher training. The last two points involve cooperation with the University of Lund, partly within the framework of a group departmental board. Bror Ångquist is the director of studies in the department.

The department expanded rapidly during the latter part of the sixties and has had between 90 and 120 employees in recent years.

Research program

A list of recently completed and current major projects is given in Boxes 1 and 2, grouped in the four "sections" mentioned earlier. For more detailed information about the projects, the reader is referred to separate reports (e.g. Bjerstedt, 1973 a, b, 1974 a, b) or to the contact persons for each project (see Box 2).

The projects in the first section - material-oriented research - aim at contributing to our knowledge of the suitability of different teaching methods within specific subject areas and at systematically developing and testing study material systems. The IMU project was one of the earlier and more extensive projects. Its purpose was to construct a comprehensive self-instructing study material in mathematics, to study how it functions and the reactions to it, and to try out suitable ways of organizing the teaching when using a study material system with far-reaching individualization (by means of studies of e.g. large classes versus normal classes, teaching with traditional one-teacher systems versus teacher teams or teacher + teacher's assistant).

The UMT project aimed at investigating prerequisites and different methodological approaches for the teaching of German to students in the Swedish comprehensive school. In the context of these investigations and by means of successive trials and revisions a study material was constructed for teaching German to beginners. Analyses of prerequisites (studies of different prerequisites in e.g. the students and the target language), analyses of processes (studies of methods used in teaching) and analyses of products (the testing of different teaching effects) provided a large amount of basic knowledge that was utilized successively in the production of study materials.

Other examples of material-oriented projects are an occupational training project, which has among other things made a study of the psychological aspects of patient care; and a project focussed on the teaching of Swedish, in which a study has been made of different methods for stimulating the students' free writing.

The second section includes some projects concentrating on job analyses and job training: teacher-oriented or personnel-oriented research. Thus in the B project, work has been done (1) on the development of methods for job analysis and the determination of training needs, and (2) on providing a basis for programs for the training of some central positions in the school sector, primarily school leaders and teacher trainers.

Box 1. Examples of recently completed projects

(For each project the names of contacts are given and examples of references)

I:1 Individualized mathematics teaching (IMU)
(Inger Larsson, Bernt Larsson)
Examples of references:
Larsson, I. (Ed.) Individualiserad matematikundervisning: En bok om IMU-projektet. (Pedagogisk orientering och debatt, No. 43.) Malmö: Hermods, 1973.
Larsson, I. Individualized mathematics teaching: Results from the IMU project in Sweden. (Studia psychologica et pædagogica, No. 21.) Lund: Gleerup, 1973.

I:2 Methods for the teaching of German (UMT)
(Horst Löfgren, Ebbe Lindell)
Examples of references:
Lindell, E. Mål i språk. (Pedagogisk orientering och debatt, No. 41.) Lund: Gleerup, 1972.
Löfgren, H. The measurement of language proficiency. (Studia psychologica et pædagogica, No. 17.) Lund: Gleerup, 1972.
Löfgren, H. Teaching methods and teaching materials in German: A survey of the UMT project. Pedagogisk dokumentation, No. 32, 1974.

I:3 Effects of mathematics teaching
(Ingrid Holmberg, Olof Magne)
Example of references:
Holmberg, I. Effects of some trials to improve mathematics teaching. (Studia psychologica et pædagogica, No. 26.) Lund: Gleerup, 1975.

II:1 Closed-circuit television in teacher training
(Bertil Gran, Bernhard Bierschenk)
Examples of references:
Bierschenk, B. Självkonfrontation via intern television i lärarutbildningen. (Studia psychologica et pædagogica, No. 18.) Lund: Gleerup, 1972.
Bierschenk, B. Self-confrontation in teacher training. Didakometry, No. 50, 1975.
Gran, Bertil. ITV-Malmö: En översikt. Pedagogisk-psykologiska problem, No. 221, 1973.

II:2 Job training in the school sector (B)
(Kurt Gestrelius)
Examples of references:
Gestrelius, K. Job analysis and determination of training needs: Examples of methods applied to teacher trainers. (Studia psychologica et pædagogica, No. 19.) Lund: Gleerup, 1972.
Gestrelius, K. Utbildningsplanering. (Pedagogisk orientering och debatt, No. 30.) Lund: Uniskol, 1970.

II:3 Job analyses in labor market training
(Lennart Fredriksson)
Example of references:
Fredriksson, L. The use of self-observation and questionnaires in job analysis for the planning of training. (Studia psychologica et pædagogica, No. 22.) Lund: Gleerup, 1974.

II:4 "Lifelong learning": Swedish part of a UNESCO project
(Lennart Fredriksson, Kurt Gestrelius)
Example of references:
Fredriksson, L. & Gestrelius, K. Lifelong learning in Swedish curricula. Didakometry, No. 48, 1975.

Box 1. (cont.)

III:1 Social development and training in the basic school
(Åke Bjerstedt et al.)
Examples of references:
Bjerstedt, Å. Fyra aspekter av social utveckling och träning. (Pedagogisk orientering och debatt, No. 45.) Malmö: Lärarhögskolan, 1973.
Bjerstedt, Å. Social development and training in school. (Studia psychologica et pædagogica, No. 24.) Lund: Gleerup, 1974.
Bjerstedt, Å. (Ed.) Social utveckling och fostran i grundskolan. (Utbildningsforskning, No. 13.) Stockholm: Utbildningsförlaget, 1974.

III:2 Creativity in school
(Göran Hansson, Åke Bjerstedt)
Examples of references:
Hansson, G. Att befrämja kreativitet i skolan. Pedagogisk-psykologiska problem, No. 243, 1974.
K-projektet (LHM). Övningsmaterial i svenska, matematik, orienteringsämnen. Pedagogiska hjälpmedel, Nos. 1-7, 1971.

III:3 Student democracy at different educational levels
(Åke Bjerstedt et al.)
Examples of references:
Bjerstedt, Å. (Ed.) Studerandedemokrati - medplanering på olika utbildningsstadier. (Utbildningsforskning, No. 10.) Stockholm: Utbildningsförlaget, 1974.
Idman, P. Equality and democracy: Studies of teacher training. (Studia psychologica et pædagogica, No. 23.) Lund: Gleerup, 1974.

III:4 Studies of deaf students
(Kerstin Nordén)
Example of references:
Nordén, K. Psychological studies of deaf adolescents. (Studia psychologica et pædagogica, No. 29.) Lund: Gleerup, 1975.

In connection with this, several studies have been started focussing on other problems concerning adult education and on the school's opportunities for preparing the students for lifelong learning.

Another project within this group has been occupied with different ways of using closed-circuit television in teacher training. For example, the project has been greatly interested in self-confrontation via closed-circuit television and micro-teaching.

The PIL project - pedagogics in teacher training - has aimed at providing a foundation for planning the training of class teachers and subject teachers by means of e.g. job analyses, inventories of study materials and experimentation.

The third section - student-oriented research - encompasses several projects concerning the goals of the school that do not refer to specific subjects. In the completed project "Social development and training" a

Box 2. Examples of current projects
(The names of contacts are given for each project)

I:4 Occupational training problems: Patient care etc.
(Lars Sjödahl, Bernt Larsson)

I:5 Free writing in the basic school
(Ann Martinsson, Ebbe Lindell)

I:6 The training of writing in the upper secondary school
(Åke Pettersson, Ebbe Lindell)

I:7 Educational planning in the vocational lines of the upper secondary school
(Lars Sjödahl, Bernt Larsson)

II:5 Pedagogics in teacher training (PIL)
(Bertil Gran, Christer Fritzell)

II:6 Perception and evaluation in self-confrontation
(Bernhard Bierschenk)

II:7 Adult education as a field of knowledge and application
(Kurt Gestrelius)

II:8 Different organizational forms for municipal adult education
(Kurt Gestrelius, Lennart Fredriksson)

II:9 Teachers and the slow learners in the upper secondary school
(Bertil Zachrisson, Bernt Larsson)

III:5 Consumer education in school
(Pekka Idman)

III:6 Non-subject-related goals for university education
(Pekka Idman)

III:7 Development of attitudes towards equality
(Åke Bjerstedt et al.)

III:8 Sex roles in the day nursery environment
(M.-L. Annerblom)

IV:1 Varying group size and team teaching
(Göte Rudvall, Olof Magne)

IV:2 System analysis of local school environments
(Göte Rudvall, Olof Magne)

IV:3 Pre-school - primary school in cooperation (FÖL)
(Birgitta Gran)

IV:4 Educational development work in the Malmö region: School environment
(Bertil Gran, Olle Engquist)

IV:5 Educational search strategies (SÖK)
(Bernhard Bierschenk)

study was made of three aspects of social development: "cooperation", "resistance to non-objective influence", and "world citizen responsibility". The project developed and tested various measuring methods within these sectors, made a number of mapping studies of age-related development in the basic school, and studied the outcome of some experiments that aimed at asserting a positive influence on the students' attitudes and behavioral tendencies.

Other projects within this group have studied students' attitudes towards democracy in school and society and the students' creativity. A current project concerns the school's opportunities for promoting in the students greater awareness of their individual and global roles as consumers; another project is occupied with the development of attitudes towards equality. While the greater part of these studies involve normal students in the basic school, the section has also included studies of higher age groups (university education) and studies of groups with special handicaps (the deaf).

Finally within the fourth section - environment-oriented and organization-oriented research - studies are being made of the possibilities of using varying group size and team teaching to increase the opportunities for realizing the school's goal of combining individualized teaching with social training (the VGT project).

Another project is attempting to develop new forms for the cooperation between pre-school and primary school and to provide a basis for the development of an ungraded school level comprising both pre-school and primary school (the FÖL project).

This group also contains a project on possible effects of various types of immediate school environments (e.g. open-plan schools) as well as a project concerning the initiation and documentation of research (the SÖK project).

In several of the projects in the fourth section, the department works in close cooperation with the experimentation conducted within the municipality of Malmö. Close contact is naturally also maintained with the activities of the local experimental and demonstration schools. The cooperation between research and freer experimentation has been felt to be stimulating and productive and the department has allocated special personnel to this end.

Reporting

The department has tried to develop a differentiated system of reports directed at different target groups. The system is described in more detail in Box 3. The series in book form are normally distributed by the bookseller's, the other series by the department (contact: B. Bergström).

ox 3. Thirteen series of reports and publications

rimary target roup	Title of series, initial year	Contents	Form	No. of reports etc. (Oct. 1975)
ternational udience: esearchers	"Didakometry", 1964	Reports concerning educational technology and evaluation	A4 reports in stencil/offset ("red series")	50
	"Educational and psychological interactions", 1964	Reports with psychological-sociological orientation	A4 reports in stencil/offset ("green series")	52
	"Didakometrie und Soziometrie", 1967	German-language research surveys	A4 reports in stencil/offset ("blue series")	15
	"Didakometry and sociometry", 1969	Research reports, research discussion in the form of articles	Journal-type issues	13
	"Studia psychologica et pædagogica" (in cooperation with Lund university)	Research monographs, research surveys	Book form	(12)[x]
ordic audience: esearchers	"Testkonstruktion och testdata", 1967	Test manuals, test data	A4 reports in stencil/offset ("brown series")	27
ordic audience: esearchers, acher trainers	"Pedagogisk-psykologiska problem", 1964	Research reports within different areas	A4 reports in stencil/offset ("yellow series")	278
	"Pedagogisk documentation", 1971	Bibliographical information, abstracts etc.	A4 reports in stencil/offset ("orange series")	37
ordic audience: achers, student achers, teacher ainers	"Pedagogisk orientering och debatt", 1963	Summarized information, debates, textbooks	Book form	49
	"Utbildning och utveckling", 1969	Research summaries and debates in the form of articles	Journal-type issues	13
	"Pedagogiska hjälpmedel", 1971	Experimental versions of study materials used in R&D work	A4 reports in stencil/offset ("violet series")	20
rying audience:	Reprint Series, 1965	Offprints of articles usually in Swedish and English	Offprints	187
	Compendium Series, 1966	Compendiums on varying areas	A4 reports in stencil/offset ("white series")	14

[x] Refers to the work of the Malmö department since 1972

References

More detailed information about the activities of the department can be obtained from the following:

Bjerstedt, Å. (Ed.) Student-oriented research: Some current projects at the Malmö School of Education. Educational and Psychological Interactions, No. 45, 1973. (a)

Bjerstedt, Å. (Ed.) Subject-matter oriented research: Some current projects at the Malmö School of Education. Didakometry, No. 39, 1973. (b)

Bjerstedt, Å. (Ed.) Environment-oriented and organization-oriented research: Some current projects at the Malmö School of Education. Educational and Psychological Interactions, No. 50, 1974. (a)

Bjerstedt, Å. (Ed.) Teacher-oriented research: Some current projects at the Malmö School of Education. Didakometry, No. 46, 1974. (b)

Institutionspublikationer 1964-1974. /Departmental publications 1964-1974./ Pedagogisk dokumentation, No. 35, 1974.

Malmö educational reports 1969-1974: Mini-notes from Malmö School of Education. Reprint Series, Nos. 85, 110, 117, 124, 172 and 184.

STOCKHOLM: SCHOOL OF EDUCATION

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Some general facts about the department

Sweden's first school of education was established in Stockholm in 1956 and with it an associated department of educational research, headed by Professor Torsten Husén. From the beginning the research work done at the department has been focussed on problems concerning the school reforms and problems of evaluation. The department grew rapidly, particularly during the latter part of the sixties. At present about 80 persons are employed. The head of the department is now Professor Bengt-Olov Ljung. There are two assistant professor appointments at the department. One, in educational science, is held by Ulf Lundgren, and the other, in developmental psychology with particular emphasis on the psychology and pedagogics of preschool children, is held by Bengt-Erik Andersson.

The research is mainly conducted within various projects and at present about 20 projects are in progress, each with 2-6 full-time employees working on them. The main teaching in education is given to the approx. 1,800 student teachers. University teaching takes place on A, B and C levels and as researcher training.

The department's research program

The task of the department is to conduct research into education. Such research can no longer be limited to the school in a narrow sense, nor to studies within certain restricted age-groups.

The projects that are in progress include both infant research and adult education. What is above all characteristic of the Stockholm School of Education's department of educational research is a number of projects dealing with evaluation by means of following-up, often using the perspectives of developmental psychology. The oldest of these follow-up studies is known as The Malmö Study, in which the education and careers of all the students in grade 3 in 1938 in the Malmö schools (about 1,500) have been followed up to the age of 44. A follow-up of these people's children has also been started.

Another similar study is The Västmanland Study, in which all the students (about 3,700) belonging to grade 9 in the county of Västmanland during the school year 1965/66 have been followed in their choice of education and occupation. The evaluation concerns above all some of the school's overall goals and primarily those connected with one of the main aims of the recent reforms in the school system - to achieve equal opportunities for all citizens in school education and subsequent vocational training.

Another follow-up study is a developmental study of Growth between the years of 9-17. An annual collection of data has been made concerning the height and weight and other data of 600 twins plus a large number of children of the same age. Finally, another follow-up project is Qualitative Evaluation of Teacher Training, in which an attempt is made both to describe and analyze the content and design of the teacher training, and to provide a basis for methods for the evaluation of training systems. This is being done by following the group of students in the class teacher line who started their training during the school year 1969/70.

In the project "The School and the Teachers", some of the student teachers involved in the last-named project above will be followed even after they have started working as teachers. The purpose of the project is to illustrate the working situation of teachers in the basic school by means of an analysis of the factors that impede or facilitate the teacher's work, with particular emphasis on those factors that are related to the teacher's own training.

Other types of project are being conducted within the child psychology research group. They are responsible for studies concerning forms of child care for children up to the age of two and the adaptation of children to day nurseries. One study is occupied with mapping children's activities in a modern housing area, and another is investigating the problems that arise in connection with the transition from preschool to school. The importance of the preschool for personality development is also being studied. An evaluation is being made of experimentation with new forms of work in the preschool.

The project "Children and Ethics" aims at illuminating the chances from the point of view of developmental psychology of creating an understanding of ethical questions in the preschool and the way in which such understanding can stimulate the development of the children's personalities.

Finally some projects concerning problems in the basic school, in teacher training and in adult education should be mentioned. In the project "Individual-society-education" the purpose is to make as allround a study as possible of children's development and adjustment in school and society.

Special attention is to be paid to problems concerning study motivation and the learning environment. Another project is studying the physical activities and development of adolescents. The importance of the socio-emotional climate for the learning environment of school classes is being studied in another project. Since the latter part of the sixties closed-circuit television (CCTV) has been gradually introduced in the schools of education in Sweden. In one CCTV project the effect of the use of CCTV in teacher training is being studied. CCTV can also be used as a research instrument, and one of the studies being conducted within the project involves measurement of the reliability of subjective assessments.

A process analytical study of the training of preschool teachers has also been started in cooperation with the department of educational research at Gothenburg School of Education, together with a project concerning need-oriented experiments in class teaching training. The last-mentioned project is trying out a working model that takes into consideration to a greater extent than at present the needs experienced by the student teachers during their training. The adult education project (SOS-VUX) focusses on mapping the interest in various types of education and social and psychological obstacles to participating in such education.

Reports

The research results obtained by the department are reported in many different ways. There are, for example, two Swedish-language and one English-language report series. During the autumn term of 1973 a new series was started, called "Facts and debate". The purpose of this publication is to present in an easily accessible, summarized form the more extensive and technical accounts of the research projects given in various other contexts. In addition the series aims at giving the researchers better opportunities for putting forward their personal viewpoints, interpretations and arguments, thus initiating and contributing to a livelier debate around the results obtained. General information about the different projects is available both in the National Board of Education's project sheet, "Information on school research" and in the catalogue issued by the National Council for Social Science Research. Doctoral theses in the department have previously been published mainly in the series, Stockholm Studies in Educational Psychology, but will now more often be published in a special series by the department.

From 1974 a quarterly journal has been published, "Forskning om utbildning - tidskrift för analys och debatt". The journal receives financial backing from the National Board of Education, the National Council for Social

Science Research and the Office of the Chancellor for Swedish Universities. It contains primarily survey articles, in which either one larger or a couple of smaller research projects within the same area are discussed. The publication of the journal has taken the form of a project linked to the department of educational research at the Stockholm School of Education.

STOCKHOLM: THE UNIVERSITY (1)

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Professor: Arne Trankell, on leave of absence for research
Åke W. Edfeldt, deputy
Ass. Professors: Klas Guettler, Torbjörn Stockfelt
Prefect: Åke W. Edfeldt
Directors of studies: Staffan Abeleen, Per-Johan Ödman

Research and researcher training

A considerable increase in the number of students at the end of the sixties and the beginning of the seventies also made itself felt in the department's post-graduate section. In order to give these students adequate training, the department established in the academic year 1970/71 a system of courses representing a wide range of subjects. As a result the department's post-graduate students entered for the courses on such scale that it became difficult to provide enough places to fill the demand.

Parallel to this transformation of the forms of study, the research activities of the department have also been reformed. Instead of letting the research remain solely the affair of the individual student and his tutor, the department has used research seminars to stimulate the establishment of different research groups. The advantage of such groups is that together with the others participating it is possible to discuss problems and methods as well as the results of investigations more thoroughly.

Since the aim has been throughout to provide a greater freedom of choice with regard to research problems, it has been neither possible nor desirable to construct a common research program for all the research groups. On the other hand there are certain "lowest common denominators" in the groups' choice of subjects. An example of such a common denominator is that an attempt is being made to study from different angles of approach how people are influenced and how they influence their environment. When studying these processes of influence, the groups share a similar normative starting-point, that the conditions for influence in our society should be changed so that the individual's opportunities for a fuller life are encouraged. Thus this applies regardless of whether one is studying the role of education in our society or mapping the influence exercised during therapeutic treatment.

The trend of the research described here is connected with a desire to acquire knowledge about the human being in the society in which he lives,

outside the laboratory and observation room. Therefore the research done at the department mostly takes the form of so called field research or "applied research". In many cases this practical application of the research is combined with an effort to change the reality one is studying oneself, in accordance with the principles for "action cum research".

Research groups

The research groups include the ASIF group, the BIG group, the IAN group, the IMFO group, the UMIL group and the Group for educational research.

The first-mentioned group (ASIF - from the Swedish "Arbetsgruppen för samhällsinformationsforskning": Working party for research into societal information) has taken up the question of how to achieve suitable forms for information within the society. One example is the group's research into external and internal communication concerning higher studies. In another project the group has investigated the problem of spreading messages to single individuals through "small group diffusion". The head of the group is Åke W. Edfeldt.

The IAN group (IAN - from the Swedish "Pedagogisk analys av relationerna mellan individ - arbete - närmiljö": Educational analysis of the relations between individual - work - the immediate environment) consists of a number of sub-groups, some studying more specific problems concerning the design of the working environment, others studying more general questions concerning influence, development, language and communication. The group issues reports on its activities continuously. The head of the group is Torbjörn Stockfelt.

The BIG group (BIG - from the Swedish "Behandlings- och institutionsgruppen": The treatment and institution group) conducts research into different forms of treatment. Studies are made of various therapeutic processes, the effects of therapy are evaluated, and the relation between the therapeutic environment, the design of the therapy and its effect on different clients is studied. Research workers within the BIG group are Hans Gordon, Klas Guettler, Sven Hessle, Sten Rönnberg, Bo Sigrell, Bertil Sundin and Gunnar Öberg. The group's investigations are presented continuously in a special report series. A topical example of the group's research is Sven Hessle's study of self-identity and perception, which was presented in the spring of 1975 in a doctoral thesis. Hessle shows that the manner of perceiving is connected with the progress of the therapeutic process.

In the IMFO group (IMFO - from the Swedish "Arbetsgruppen för invandrar- och minoritetsforskning": Working party for immigrant and minor-

ity research) a number of projects linked with immigrant and minority problems have been carried out. Kjell-Åke Johansson has recently written a thesis on the way in which blind persons experience their situation. Charles Westin has presented a thesis on the problems of immigrants based on letters to the editor of the Immigrants' Newspaper. In "Kvarteret Flisan" Arne Trankell has described how the inhabitants in a municipality and various municipal representatives handle a local gipsy problem. In another investigation Karin Gyllensköld has studied how women cancer patients experience their situation. The head of the group is Arne Trankell.

UMIL (UMIL - from the Swedish "Forskningsgruppen för utvecklings- och miljöfrågor": Research group for developmental and environmental questions), with Stig Lindholm as its scientific leader, is occupied with questions concerning development both on a social level (questions dealing with the under-developed countries and aid to them) and on an individual level (individuals' understanding of and influence over their own situation in life). The work is continuing on problems such as the psychological aspects of the concept 'quality of life' and on projects concerning the evaluation of different educational experiments (training of counsellors in psycho-therapy, project-oriented teaching at People's High Schools (folkhögskolor). A recently completed thesis - Ulf Janson's "Intentionalitet och medsubjektivitet" (Intentionality and co-subjectivity) - provides a theoretical study of the premisses for the educational dialogue, associating closely to the educational debate of recent years. The common factor of all the projects in which the group is involved is a view of human nature that emphasizes the individual as a subject seeking and creating a purpose.

The Group for educational research, led by Klas Guettler, is studying the educational reforms of recent years and their consequences for educational science. Attention is also being paid to adult education and the question of participation in trade union work.

Finally we would like to point out that the activities of these partly specialized groups are linked by a continuous theoretical and methodological discussion, taking up topics such as different scientific ideals and their methodological consequences.

STOCKHOLM: THE UNIVERSITY (2)

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Prefect and scientific tutor: Prof. Torsten Husén
Secretariat: Birgitta Horn

Research program

The work of the Institute is centered on research into international problems in the field of education. At present the work is strongly associated with the research that is being conducted within the framework of an international evaluation project, the IEA study, the international secretariat of which is located at the Institute.

At the present moment 22 countries are participating in the IEA project. They are Australia, Belgium, Chile, England, Finland, France, India, Iran, Ireland, Israel, Italy, Japan, Holland, New Zealand, Poland, Rumania, Scotland, Sweden, Thailand, the Federal Republic of Germany, Hungary and the USA.

The overall purpose of the IEA project is to study and attempt to explain differences in school results between national school systems and between schools and students within these systems. The international variations in school structure, curricula and teaching methods are used to cast light on the effect that these and other factors have on the results of the educational system.

The work of the IEA project can be divided into three stages. In the first stage, which was completed in 1967, the knowledge of mathematics in 12 countries was studied. Stages 2 and 3 encompass six subject areas, namely science subjects, reading comprehension, literature (data collected in 1970), English, French and social science (data collected 1971). In the 1970 and 1971 testings, three categories of students usually participated: those who were 10 and 14 years old and those attending the last grade of the upper secondary school or its equivalent. In some countries, such as Sweden, students in the last grade of the compulsory school also took part. The number of students in each category included in the Swedish sample varied between 2,000 and 3,000, from roughly a hundred schools per category. The samples were representative of the whole country. Data on knowledge,

attitudes and home background have been collected from the students. Teachers and school principals have also answered questionnaires.

Four guest researchers from different countries work at the Institute each year. They work on the analysis of the IEA data, often starting from questions asked in their own countries.

A number of sub-projects in which the data-bank of the IEA project is used to a very large extent are being conducted at the Institute.

1. The Swedish school in an international light

Using data from Swedish students and teachers, an attempt is made to evaluate the Swedish basic school and upper secondary level. The development of knowledge from grade 3 to grade 9 in the basic school is analyzed by calculating the results from grades 3, 4, 7, 8 and 9. In the evaluation of the upper secondary school and the vocational school the students are divided according to the different lines they are studying. The standard of the elite in different countries is studied by comparing different percentages of all the students. An answer is also sought to the question: "How many are taken how far?" A great deal of interest is devoted to an analysis of the Swedish students' interest in school and education. The significance of the social background for school achievements and recruitment to the upper secondary school and vocational school is also taken up. The first volume in the Swedish series 'The Swedish school in an international light' was published in 1973, presenting data on science subjects. Reports on reading comprehension and literature were both published in 1974. The subject areas English and French as foreign languages and social science will be dealt with in one volume each.

2. Post-secondary education and background

In 1972 a follow-up was initiated of the students from the last grade of the upper secondary school who participated in 1970 and 1971 in the IEA tests in science subjects, reading and literature, and English, French and social science respectively.

The overall aim of the project is to study the recruitment to post-secondary education by an analysis of the choice of studies and background of two national samples of students from the upper secondary school. Examples of the questions being studied are: Which students have continued to post-secondary education, and how have different factors influenced their decision? What kind of post-secondary education have students with different backgrounds chosen? How is the choice of study course related to achievements and interest in different subjects in the upper secondary school? How

many of those not continuing would have been able, judging by the results in the IEA tests in science subjects and languages, to study these subjects at university and college? What regional variations are there? What differences are there between Sweden and the other IEA countries with regard to recruitment to post-secondary education?

3. Statistical methods in research into the behavioral sciences

The IEA project encompasses developmental work in which different methods of statistical analysis that can be useful in behavioral science research are tested and then presented in an easily comprehensible way. In cooperation with other institutes developmental work is being done which aims at both stimulating the research in applied statistics on topical behavioral science problems and providing the statisticians with opportunities for trying out on empirical material statistical methods that are under development. The project is also trying to promote the coordination of existing computer programs suitable for social science research and the dissemination of information about them.

4. Study of Piaget's model of the development of reasoning

In order to study the validity of Jean Piaget's logical model of the development of reasoning, the pattern of the answers given by children from Sweden and India to a number of items from tests in science subjects is being analyzed. The problem is of importance for the didactic-methodological research that is based on this theory. The main questions are: Can Piaget's theory of a fixed sequence of "stages" in the development of reasoning be verified or falsified by an inter-cultural study? What effect on the development of reasoning can be ascribed the variables nationality, age, sex, social origin, number of years of schooling?

5. Recruitment to education that is preparatory to university studies

Taking the IEA material as a starting-point, a study is made of who participates in education that is preparatory to university studies in different countries. A comparison is made between the five per cent best 14-year-olds and upper secondary students or their equivalent in different countries with regard to home background, school motivation, school interest etc. A detailed analysis is also given of the achievements of the elite in different countries.

Documentation

The extensive material gathered will be made available to qualified researchers by means of edited data tapes stored in Stockholm, Chicago,

Stanford, Melbourne and Tokyo. Hopefully there will eventually be a set of the data in each participating country.

The international results from the IEA project are reported in English in the series 'International Studies in Evaluation', published by Almqvist & Wiksell. It is planned that the results from the six subject areas will be presented in nine volumes. Separate studies will be published in a monograph series. National studies are published in the country concerned, usually in the language of that country. In Sweden results are published in the series 'Svensk skola i internationell belysning', which is also published by Almqvist & Wiksell. In addition, some publications will be published in the Swedish Board of Education's report series 'Utbildningsforskning'.

Bergling, K. The development of hypothetico-deductive thinking in children. (IEA Monogr. Stud. 3.) Stockholm: Almqvist & Wiksell, 1974.

Choppin, B.H. The correction for guessing on objective tests. (IEA Monogr. Stud. 4.) Stockholm: IEA, 1974.

Comber, L.C. & Keeves, J.P. Science education in nineteen countries. (International Studies in Evaluation I.) Stockholm: Almqvist & Wiksell, 1973.

Dunlop, J. The teaching of English in Swedish schools. Stockholm: Almqvist & Wiksell, 1975.

Hansson, G. Läsning och litteratur. (Svensk skola i internationell belysning II.) Stockholm: Almqvist & Wiksell, 1975.

Husén, T. m.fl. Naturorienterande ämnen. (Svensk skola i internationell belysning I.) Stockholm: Almqvist & Wiksell, 1973.

Lewis, G. & Massad, C. The teaching of English as a foreign language in ten countries. (International Studies in Evaluation IV.) Stockholm: Almqvist & Wiksell, 1975.

Malmberg, P. Engelska som främmande språk. (SÖ, Utbildningsforskning 19.) Stockholm: Liber Läromedel, 1975.

Oppenheim, A.N. & Torney, J. The measurement of children's civic attitudes in different nations. (IEA Monogr. Stud. 2.) Stockholm: Almqvist & Wiksell, 1974.

Purves, A.C. Literature education in ten countries. (International Studies in Evaluation II.) Stockholm: Almqvist & Wiksell, 1973.

Rosenshine, B. Teaching behaviours and student achievement. (IEA Monogr. Stud. 1.) Slough: NFER, 1971.

Thorndike, R.L. Reading comprehension education in fifteen countries. (International Studies in Evaluation III.) Stockholm: Almqvist & Wiksell, 1973.

UMEÅ: SCHOOL OF EDUCATION AND UNIVERSITY

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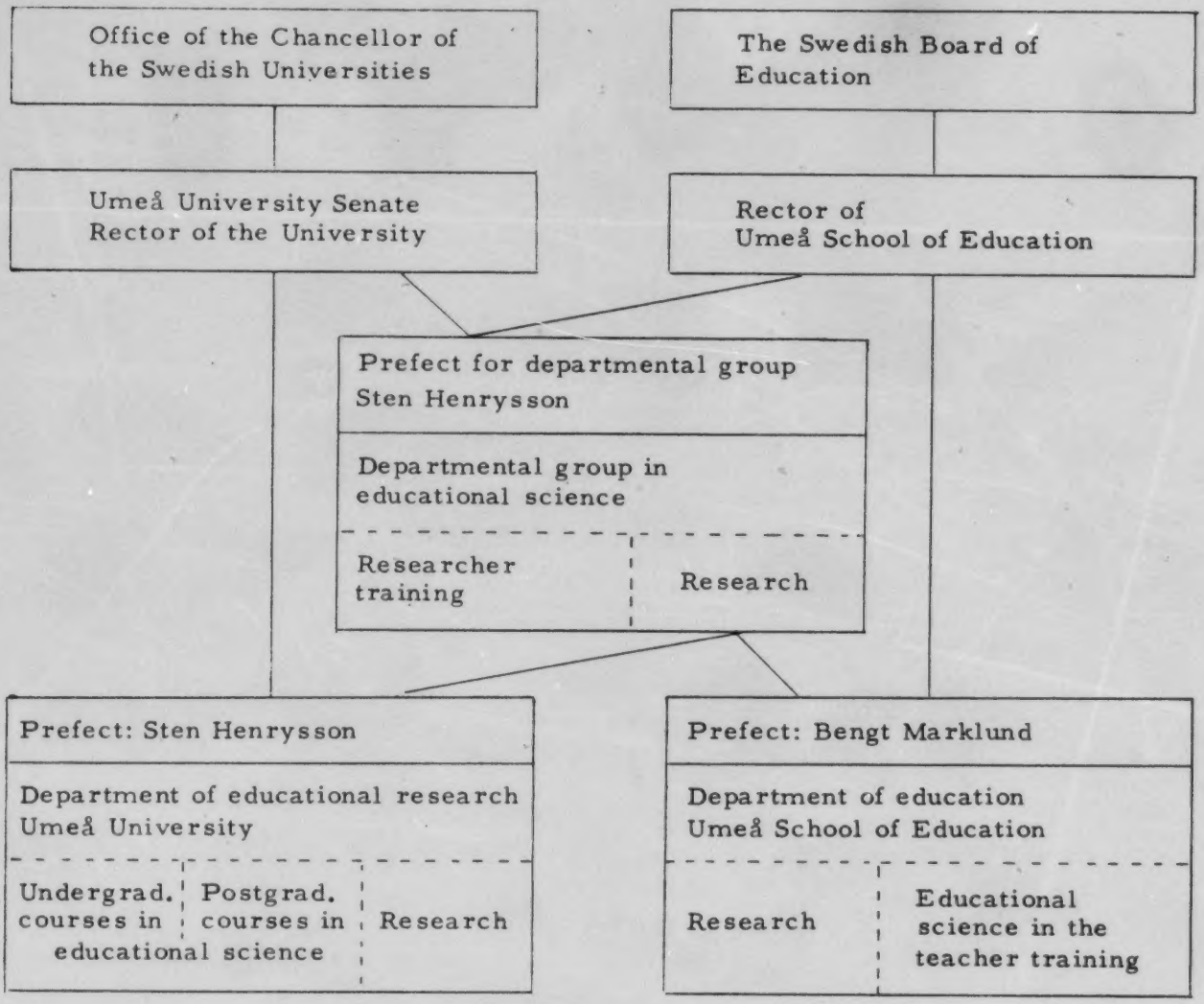
(The latter address also applies to the research done at the Umeå School of Education)

Organization and personnel

In Umeå educational research is carried out at two departments, the department of education at the School of Education and the department of educational research at the University. Since 1968 these departments have had a joint chair, which has been held from the start by Professor Sten Henrysson. Once the professorship had been inaugurated, the research got seriously underway.

The diagram below shows in general terms the formal organization for cooperation between the two departments. The informal cooperation between the departments as far as the teaching is concerned is, however, much livelier than the diagram gives reason to believe. This cooperation arises partly through the dual professorship, partly through the researchers at the School of Education department having their rooms in the same building as the University department, together with the fact that these researchers also function at times as teachers and tutors at the University department. An additional factor of great significance is that the two departments have built up a joint research organization. The cooperation within the research organization is in practice total, and for that reason those working there have the feeling in their daily business of there being one department rather than two. The cooperation between the research organization and the university teaching operates daily, not only through the exchange of teachers - researchers stated above, but also through the service unit built into the organization, which in practice also serves the teaching section of the University department. Because of their locality it is not possible at present for the teaching section of the School of Education department to be included in this cooperation to the same extent. It is planned, however, to bring the two departments under the same roof in the projected new School of Education House, after which the cooperation can be intensified.

Diagram showing the organization of educational training and research in Umeå and the dual authority system



As far as the teaching is concerned, the work is led by a director of studies at the respective departments, under the supervision of the prefect. The work of the common service unit is led by an extra research secretary. In all the staff at the two departments totals 62 persons, the majority of whom are connected to a greater or lesser degree with the research.

Research program

The cooperating departments have a broad program of research, but with a certain emphasis on educational measurements, evaluation, and physical education research. A short description of the program is given below.

General problems connected with the theory of tests are being studied

within a project in which interest is at present focussed on the evaluation of so-called criterion-related tests. Another project is investigating the possibility of improving prognoses of success in the upper secondary school and vocational school by means of ability and/or knowledge tests. Otherwise, test construction is included as one stage in a number of projects, but above all in one that aims at constructing tests for assessing study aptitude. Measurement of readability is being carried out in a project in which certain psycho-linguistic variables are manipulated experimentally in order that effects on the reader's behavior can be measured. Historical source material in the form of e.g. the registers from parish catechetical meetings is used in a study of the development of literacy in Sweden.

Evaluation of teaching and work methods at different educational levels is the main aim of several projects. Recently an evaluation of decentralized university teaching has been completed. A newly-started project is evaluating the teaching in individual university subjects. One project is aiming at the development of models and methods for the evaluation of teaching in terms of goal descriptions, content descriptions and related behavior descriptions and tests. Analyses of education and students is a project making use of systematic analyses of beginners' groups and items in the courses in an attempt to find a more stable basis for evaluation of the teaching in the Arts faculty. Evaluation of study material systems having radio and television as integrated parts of the system has been carried out by a project within TRU's (Television and Radio Teaching) working group for the school. Changes in courses of study and vocational plans in the vocational school and upper secondary school are analyzed in another project. Two projects are studying the school's forms of work. One is designing and testing principles for training in group work, while the other is mapping disturbances in the school work. A newly-started project is intended to provide a foundation for an evaluation of educational research, which is to include a mapping of research traditions and comparisons with the research actually carried out at the departments of educational research in Sweden.

Physical education research has in recent years been given an increasingly large share of the departments' research program. The psychological and physiological effects of physical exercise are being studied. The design of the physical education given in schools has been studied in a project now completed and has given rise to an evaluation of the physical training teaching that is being made in a new project. The teaching in the use of maps and the compass has proved to be of extremely varying quality. The project on elementary teaching in orienteering is intended to produce methods and ma-

terials in orienteering for grades 1-6.

The geographical location of the University and the School of Education are partly responsible for the circumstance that problems specially related to this part of the country and the Arctic area have been taken up in some projects. Thus one project is to study the school in sparcely populated areas, which in addition to problems at different school levels also includes the problems of bilingualism. The Lapp population is the object of demographic studies and studies concerning the teaching of Lapplanders.

A more detailed description of the various projects may be obtained from "Pedagogiska rapporter Umeå", no. 20, no. 27, no. 38 and no. 47.

The research projects of the two departments are reported in the report series, "Pedagogiska rapporter Umeå", "Pedagogiska monografier Umeå", "Educational Reports Umeå" and "Pedagogisk debatt Umeå".

The research done at the two departments is financed largely by the Swedish Board of Education, the Office of the Chancellor of Swedish Universities, the National Council for Social Science Research, the Kempe Trust and the Bank of Sweden Tercentenary Fund.

UPPSALA: SCHOOL OF EDUCATION

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Organization

The internal decision-making body is the departmental staff board, which consists of all those employed in the department. The chairman of the board is the Prefect of the department, at present the associate professor. Questions concerning the cooperation with the university department of educational research in teaching and research are dealt with in an interdepartmental board consisting of elected representatives from both staff bodies.

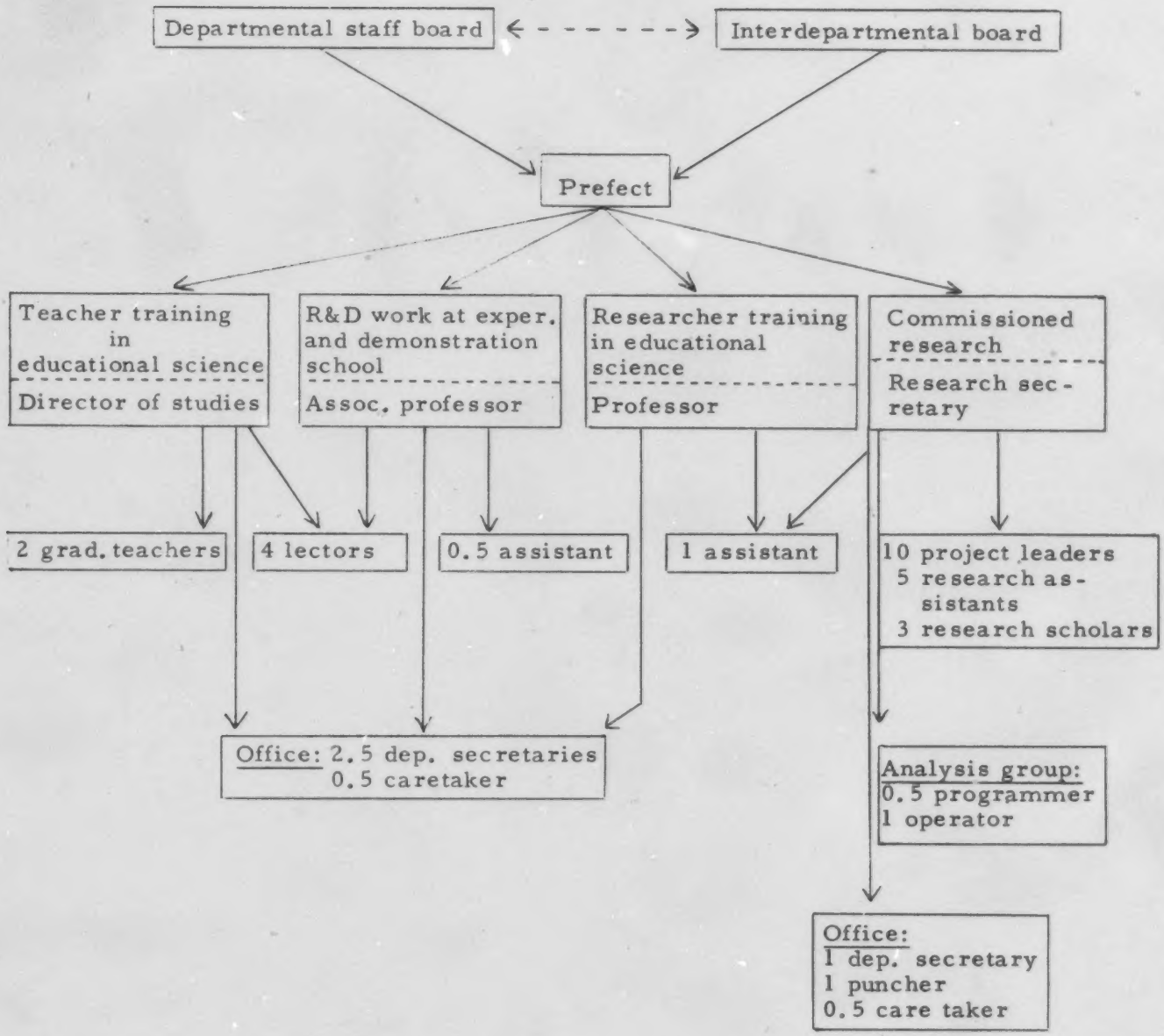
The teaching in educational science within the teacher training is administered by a director of studies. The associate professor is responsible for the department's involvement in the work done at the experiment and demonstration schools. The training in educational science given to research workers is led by both professors, who also function as scientific leaders for the commissioned research at the department, which is administerad by a research secretary.

The department of educational research at the school of education and the educational development unit at Uppsala university have formed a common data section (led by research engineer Bo Jacobsson) with a terminal linked to all university computers.

The organization of the department and its total staff on July 1 1975 are presented in the figure below. The figure does not include temporarily employed members of staff such as coding and calculating clerks etc. These normally total about three persons, but can at times rise to about ten.

Research program

The research that is related directly to the department is organized into a number of independent projects, each with a project leader holding the immediate responsibility and with one of the professors as scientific leader. The project research is financed up to a good 80 per cent by funds from the Swedish Board of Education; other financial sources are in the order given:



the Bank of Sweden Tercentenary Fund, the National Council for Social Science Research, the Educational Development Center in Uppsala, and the Technical Development Board.

The department's project research has during the past six years roughly concerned the following problem areas: special education and language learning, a conglomerate that has focussed on both subject methodology and educational-psychological aspects, student welfare in a wide sense, and rationalization of the school's teaching and administration seen from a future perspective of educational technology. These problem areas are linked in several respects through having common points of departure. In all of them for example, questions concerning the communication process, integration of

different student categories in the school collective and the interaction between school and society are of central importance. Certain larger projects, financed by the Swedish Board of Education's L3 office, have functioned as mother projects for investigations financed in other ways.

Just now the planning of the research in the department has entered a phase in which we are trying to supplement or replace the grouping of studies into projects by grouping in accordance with general problems. Since this reorganization has not been completed - the necessary regrowth has at present only limited resources - the following account of the current research will follow the areas given above.

Readers wishing to know more are referred to the Swedish Board of Education's catalogue, Pågående skolforskning (Current School Research), the catalogues of completed studies published annually by the National Library for Psychology and Education, and above all the department's own report series, issued as shown below.

	Reports	Reports	"Pedagogisk forskning Uppsala"
Distribution	Dep. Ed. Res. Uppsala SoE	Uppsala Educ. Authority	Dep. Ed. Res. Uppsala SoE
Binder and format	Olive green, A4	Yellow, A4	White, pocket
Numbering	Consecutive	Within projects	Annually
Issues published up to July 1975	52	45	4

Language learning

The experiments on language learning are at present concentrating on problems connected with the teaching of the first foreign language. At a later stage the other foreign languages will also be studied. These experiments are all gathered under one mother project, which forms a data base for a number of other investigations.

English in grades 1-3

Project leader: Fil.kand. Lennart Linell

The first phase of the project work, which started in 1969 with planning and the construction of study material, will be completed in 1976. The mother project is financed by the Swedish Board of Education. The National Council for Social Science Research is sponsoring the special investigations.

The most suitable moment for introducing the first foreign language in the basic school has been discussed from the point of view of both educational policy and psycho-linguistics. An improved ability to communicate by means of a broadly based bi-lingualism can be an important prerequisite for equality, while at the same time a widespread bi-lingualism is of socio-

economic interest in a world with an increasingly widespread net of contacts and greater mutual dependence between nations.

Considering these political motives and taking modern psycho-linguistic theories as a starting-point, the project aims at illuminating as comprehensively as possible the effects of a redistribution of the allotted teaching periods in English, i.e. spreading the total number of teaching hours over the whole basic school time, grades 1-9. By a comprehensive illumination is meant different kinds of effect measurements in English, Swedish and mathematics, together with attitude studies. In addition to these effect measurements using a control group procedure, continuous process studies are also being made. Different types of tests are constructed and tried out and a complete study material system has been worked out, which also requires continuous in-service training for the teachers. At present the project involves 85 classes or approx. 1800 students.

The project also encompasses five sub-studies

(1) The development of methods for measuring pronunciation. In cooperation with an Institute of Speech Transmission. Fil.kand. Lillemor Lewrén.
(2) The development of methods for goal-related language tests. Dr. Nancy Belmore.
(3) Analysis of methods for determining teacher effectivity via classroom observations. Fil.kand. Lena Tjeder.
(4) Experimental studies of the first reading training in foreign languages. Fil.mag. Bo Jansson.
(5) A longitudinal study of the situation of immigrant children. Fil.kand. Lennart Linell.

Research on special education

The greater part of the special education research that initially dominated the work of the department has now been completed. The projects concerned are: Reading training in school for mentally handicapped children, Job adjustment in retarded adults, Self-instructional methods in the teaching of the deaf and Studies on the study situation of the visually handicapped. This research has followed the intentions of the new school in trying to offer different groups of handicapped students specially adapted teaching. Important parts of the work here have been the production of study materials and the development and evaluation of technical aids, which has been carried out in cooperation with subject methodology experts and technological experts. The completed investigations into the study situation of the visually handicapped have given rise to two new independent projects that are presented briefly below.

Research and development work on teaching methodology for visually handicapped students

Project leader: Fil.lic. Nils Trowald.

Planned project timetable: 1975 - 1980.

The project aims at making optimum use of the opportunities the visually handicapped person has of reading via talking books, Braille and other aids such as the reading machine, Optacon. The project also intends to increase the prospects of the visually handicapped being able to learn to read by improving methods for reading training. The situation of visually-handicapped preschool children and their adjustment to the compulsory school will also by analyzed, as will the means used by adults to move from one place to another. Thus the target group covers all categories of the visually handicapped, from preschool children and upwards plus others involved (e.g. teachers and parents).

Working environment for the visually handicapped

Project leader: Fil.kand. Mats Myrberg

Planned project timetable: 1975 - 1977.

As a result of technical developments and structural rationalization of industry, the traditional trades and crafts of the visually handicapped have disappeared. Thus their labor market has steadily deteriorated. By using certain technical aids and adapting tasks and work places, a visually handicapped person can very well cope with jobs that are by tradition considered to surpass their capacity. The experiences of countries that are ahead of us in this field show this clearly (e.g. England, East Germany, New Zealand).

If new opportunities for the visually handicapped are to be opened up, however, it is necessary to be able to assess the need for technical aids resulting from the new jobs. The aids must be developed before the visually handicapped person can start work.

The purpose of this project is to develop analysis methods by means of which it will be possible to determine what aids different jobs require before starting any technical development work. The analysis methods are specially focussed on deciding the display demands of various tasks. Aids already existing on the market (general purpose aids) will be evaluated, and specified requirements (from the display point of view) will be stated concerning aids for various jobs. The latter point will primarily help people who have had their sight damaged in adulthood to return to their previous jobs as far as possible.

Coordination of research on special teaching

Project leader: Docent Sven Amcoff.

Planned project timetable: 1975 - 1978.

Relatively comprehensive research into special teaching has been carried out during recent years, but the results of this research have not always been made available to consumers. With the limited resources available, it seems as if future research could be made more effective by means of increased contacts between researchers and consumers. The aims of these studies are then:

1. to make an inventory of all on-going research in the field
2. to coordinate on-going and planned R&D work
3. to analyze the need for research activities
4. to disseminate information
5. to investigate the possibility of establishing a center for research into special education.

The study is to encompass special education research concerning the mentally retarded, those with an auditive or visual handicap and the disabled.

Rationalization of the school's teaching and administration

The computer is likely to be a powerful aid in teaching and the administration of teaching in the future. Therefore experiments should be carried out now if educationalists are to have any chance of steering developments.

Individual courses of study and ungraded teaching

Project leader: Fil.kand. Timo Malmberg.

The project was started in 1970 and will be completed preliminarily 1976/77.

The sponsor is the National Board of Education.

The work is being conducted in accordance with the following guidelines:

The main purpose of the project is to use computer-supported routines to make possible individual courses of study, ungraded teaching and a more adequate use of available resources. Methods associated with operation analysis and product control will be developed and tested for use in the running of a school unit and the administration of the teaching. It is among other things a question of finding out how rational and necessary it is to maintain the tradition of dividing up the students in the upper secondary school into lines, grades and classes with predetermined courses of study, which means that all students in a class are moved parallel and by steps through the grades, constantly studying between 10 and 12 subjects at the same time. One motive for the present way of working can be that up to now the aids

used in running a school and controlling the teaching have made any other arrangements practically impossible, even if they were desirable.

The administrative support routines are being tested at a large upper secondary school. There the necessary work is also being done of breaking down and defining the separate items in the curriculum in order to create a basis for individual courses of study. In the initial stage mathematics and science subjects are being considered.

Evaluation of the vocational lines in the upper secondary school

Project leader: Fil.kand. Rune Axelsson.

Length of project: Jan. 75 - Dec. 76.

The basic training in several trades has been incorporated into the vocational lines of the new upper secondary school. There is a lack of knowledge about the way in which these lines function. In this project, therefore, these lines will be made the object of an evaluation concentrating on how students who have been through the training and have found a place in working life feel about the training they have received and their present situation in a place of work. - The project is being conducted in close cooperation with a working party at the Swedish Board of Education. Cooperation has also been established with the Central Bureau of Statistics.

Student welfare

Three completed projects have been reported in the Educational Development Center's report series, namely Intensified student welfare including leisure time activities, The extended leisure-time center and Disturbances in the classroom.

Problems connected with the transition between school levels and school forms

Project leader: Fil. kand. Rune Axelsson.

The project was started in 1971 and should be completed during 1975. It has been conducted within the Educational Development Center in Uppsala but financed by the National Board of Education.

In the project special attention has been paid to the transition from the middle level (grade 6) to grade 7 in the upper level. This transition involves great changes for the students, and experience has shown that it can cause a lot of problems in the school work: The teachers are faced with the task of teaching students of whom they know very little, and the students find themselves in an essentially new school situation.

With this background the aim of the project has been to study the intro-

duction period at the start of each new school level and find ways of (1) facilitating the planning of individual courses of study by giving the teachers as much information as possible about the students, concerning both their knowledge and skills and their non-cognitive functions such as way of working and social relations, (2) activating the students in the planning of the teaching, thereby increasing motivation, (3) providing the students and their parents with information as to the forms that the work in the new school level will take. - The project has involved about 500 students, plus their parents, teachers, student welfare personnel and school principals.

Lines of development

It has already been mentioned that the department wishes to reorganize the project research into broad problem areas. At the same time we want to bring the research and development work closer to the school itself and to the teacher training. Several people in the department are prepared to study "the expanded role of the teacher" as a problem area. In addition to research staff, teachers of educational science, lecturers in methodology, tutors and student teachers will be drawn into that kind of project activity. A few single pieces of work that have been done already can be mentioned here.

The function of the tutor

Project leader: Fil.kand. Britt Englund.

A description has been made of how the tutoring of student teachers in the class teacher line functions during their periods of practice teaching. The discussions between student teachers and their tutors were registered by participating observers, and the views of both student teachers and their tutors on the tutoring were collected by means of a questionnaire. The collection of data has been focussed both on what happens during the practice period and on what the parties concerned - student teacher and tutor - consider to be essential in the work of a teacher, i.e. how they experience the role of the teacher. - The work is to continue with an analysis of the demonstration lessons and how they are used. Suggestions for new models will be worked out and tested.

Within the completed project, Intensified student welfare, which was led by Fil.kand. Agnes Nobel, interest arose in The relations between the school and the immediate community. We know that the contacts the school has with social institutions such as museums, theatres, places of work and societies are extremely limited compared to the intentions of the curriculum in this respect. What are the obstacles to this cooperation between school and the

immediate environment? What opportunities are there for opening the school to the community, and what have the community's institutions and the prople active in them to offer?

Within the area Affective development in school studies are being carried out for doctoral degrees and degrees in psychology, together with some practical classroom work.

Project leader: John Steinberg, M. A.

The purpose of affective education is to train the students' skill in communication, their ability to cooperate, their ability to evaluate and select critically, their ability to make independent decisions etc. This type of skills will probably be more important in the school of the future than short-term subject goals of the factual knowledge type; such well-established subject goals can, however, very well be realized by means of methods that lead to process goals of the type suggested above. This line of thought is in agreement with the directives of the curriculum and the proposals made by SIA, the State Committee on the Internal Work of the School.

Reference: Steinberg, J. Gruppsamtal. Affektiv utveckling i skolan. /Group discussion. Affective development at school./ Stockholm: Liber, 1975.

Teachers at the experiment and demonstration school in Uppsala have for several years been practically involved in the question of differentiation, particularly Individualization in language teaching, a question to which it is difficult and yet important to find an answer. Discussions have been held and experiences gathered, partly by means of experiments with common studies in English, i.e. combining the special and general courses in English in grade 7. Theoretical studies have also been made of the question of differentiation.

Reference: Jonsson, M. Effekter av nivågruppering. /Effects of streaming./ Report (Uppsala School of Education), No. 52, 1975.

The Swedish Board of Education has commissioned the newly-started project, Evaluation of the Educational Development Centers.

Project leader: Sverker Lindblad.

Project timetable: 1975 - 1978.

During the spring of 1975 the work was planned and an inventory made of the problem area. This inventory resulted in a proposal for guidelines for the Centers from the Educational Committee at the Swedish Board of Education. The project deals with the Educational Development Centers as a part of the total research and development work. It involves: (a) Initiation and planning; (b) Organization; (c) Resources, implementation and results;

(d) Evaluation methods within the Centers; (e) Means of reporting and dissemination of results. The term 'evaluation' should be taken in a wide sense. The project does not aim at producing descriptions in terms of good or bad pieces of work, but directs instead attention at the process itself in order to get at the possibilities of the Development Centers.

The project is working on two fronts - one that is extensive and descriptive and the other intensive, comprehending and explanatory. The extensive work is focussed on all the current and completed Centers in order to obtain information that will be largely quantitative in nature. The intensive work is concentrated on a few Centers as qualitative units in order to get at the actual process in the development work.

The project is expected to result in proposals for the organization of the Centers, guidelines for the arrangement and implementation of this form of developmental work and for the utilization of the experiences gained in the work. The project work is intimately connected with general questions of innovation and change in education and with other forms of development work and also research in order to clarify the conditions and possibilities of the Centers.

UPPSALA: THE UNIVERSITY

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Organization and personnel

Professor: Wilhelm Sjöstrand
Ass. professor: Gösta Berglund
Prefect: Lector Bengt Ramund
Director of studies: Lector Sten Olsson

In 1948 the first independent department in educational science in Sweden was established in Uppsala, with Professor Wilhelm Sjöstrand appointed to the new chair.

The main work of the department consists of basic training and researcher training in educational science and the initiation and implementation of research in this field.

Since the autumn term of 1973, the department has had a new organization with a departmental board, consisting of three established teachers, three unestablished teachers, five students and two representatives of the technical and administrative staff.

In 1974 the department employed the following staff (some on a part-time basis): 2 professors, 1 docent, 6 lectors, 2 research assistants, 2 graduate teachers, 6 assistants, 1 careers guidance officer, 5 office workers, 1 junior clerk, 4 archive workers and 2 caretakers. (These figures include the administration and teaching at the university college in Örebro, where the department teaches courses up the 20 and 40 point level.)

Research program

The areas of interest that have developed within the department are presented in the following as descriptions of research projects. The project research is financed largely by the National Council for Social Science Research, the Swedish Board of Education, the Bank of Sweden Tercentenary Fund and the Office of the Chancellor of Swedish Universities.

Freedom and equality (Wilhelm Sjöstrand)

The project tackles the concepts of freedom and equality in the educational debate from the mid-18th century within Western democracy. The purpose is to illuminate the implications of the concepts up to the present day in order to obtain a better basis for contemporary points of view. The main method used is analysis of historical sources. The results have been presented within the department's report series in about 20 reports and in books in Swedish and English.

Students with weak study-motivation (Gösta Berglund)

The project forms a sub-project within the Educational Development Center in Uppsala. It has a dual purpose: (1) to find reasons for weak school motivation and (2) to find measures intended to reduce weak school motivation. The work done by the project has included literature surveys, studies of students' adjustment at and enjoyment of school, studies of modified schooling in grade 9, and studies of hyper-active children. About 20 reports have been written and published in a series from the Educational Development Center in Uppsala.

Preschool research (Gösta Berglund)

The project is based on the general medical check of 4-year-olds that takes place in the county of Uppsala. One report has been published concerning evaluation of the psychological examination given at this check-up. Investigations are underway on the role of the children's clinics as advisory bodies for parents with preschool children. The investigations usually constitute part of the work for a degree in psychology.

The lawyer project (Lars-Gunnar Holmström)

The project is a R&D project in university education, which is conducted in cooperation with the Law School at Uppsala University.

Main problems:

- To find functioning models for system analyses of the type of educational system represented by the education in law, i.e. a professional, strictly controlled course of study at post-upper secondary level.
- To provide a better foundation for decisions for those responsible for the courses at departmental level.
- To provide an information basis for the study counsellor.

These main problems have been split up into a number of sub-problems, i.a.:

- To give a description of the current situation of the students when studying for the Bachelor of Laws degree.
- To investigate the needs of active lawyers in relation to the training they have received.
- To investigate the reasons for interrupted and delayed studies.
- To investigate how the work of the study counsellor is divided between different functions.
- To investigate the views of the teachers concerning the training.

The work of the project has included the evaluation of courses, questionnaire studies, follow-up studies and work reports for the study counsellors. So far four reports have been published in the department's report series.

The department project (Lars-Gunnar Holmström, Outi Lundén)
The purpose is to develop teaching methods and teaching goals that are better adapted to the goals, interests and study prospects of the students. Data have been collected during six terms by means of questionnaires, diagnostic tests and course evaluations.

Treatment of drug-addicts (Lars-Gunnar Holmström, Christer Stensmo)
The aim is to evaluate the treatment given to drug-addicts by so called therapeutic communities. The project is financed by grants from the National Council for Social Science Research and the Temperance Board of Stockholm municipality. Two reports have been published in the department's report series and a further two are in progress.

The anti-mobbing group (Anatol Pikas)
The project is intended to develop methods for putting an end to the mobbing that occurs in schools. The student welfare conferences held at the schools refer cases to the group, which is orientated towards active measures.

Rational solution of conflicts (Anatol Pikas)
The project started in 1968 and has resulted in a textbook with the above title, intended for use in the upper secondary school. Nine bachelor-degree papers, one report in the report series, two articles and conference papers are presented. A field study made in the spring term of 1974 concerns the problem of the extent to which training in inter-individual conflict solution leads to transfer effects on the formation of attitudes and readiness for action on an international level. The potential ability to take action for the solution of conflicts is also illuminated from sociometric points of view.

Development of rational communication therapy (Anatol Pikas)
During the spring term of 1973 Anatol Pikas conducted a course called "Rational short-term therapy" at the department. The goal was to analyze the patients' conflicts with relevant persons as communication difficulties in a psycho-dynamic sense. The course gave rise to psychology papers based on the frames of reference involved, partly with family-therapeutic application, partly with crisis-therapeutic application.

Structure of the ability to spell correctly (Tord Dahlbom)
The aim is to illuminate the causal background to difficulties in reading and writing and to make the teaching of spelling more effective. The main

hypothesis is that words contain three different kinds of spelling difficulties.

Criminology (Wilhelm Sjöstrand, Gunnar Herting, Jan Holmer, Ann-Britt Bergman) The main interest here concerns the influence that primary socialization has on the development of the individual. The socialization background of different types of criminals has been described. This description now forms a basis for studies of relapses. One of the purposes of these studies is to shed light on the way in which groups of criminals with different social and emotional backgrounds and different degrees of earlier norm influence have varying needs regarding treatment. So far the research has been presented in two licentiate theses.

Reporting

Since the fifties the department has presented its research in a report series in English. The last issue in the series was published in 1969. In 1970 a Swedish report series was started, in which the departmental reports are published now.

The various projects at the department are presented recurrently in the report series under the heading: Completed, on-going and planned research. In future a catalogue will be included of all the theses and papers presented in the department.

PART II

GOTHENBURG: EDUCATIONAL DEVELOPMENT OFFICE

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Educational Development Center

In cooperation with the Swedish Board of Education, development work is being carried out in Gothenburg in the form of a so called Educational Development Center ("pedagogiskt utvecklingsblock"). The theme for the center is "The basic communication skills", and the activities are concentrated on the subject of Swedish, primarily reading.

The principal for the development center is Gothenburg's general education authority. A special planning committee is leading the work, and this committee includes representatives of the education authority, the school administration, the county education committee, and the departments of education at the School of Education and the University. In a reference group for the activities there are representatives of the students, parents and the different categories of personnel participating in the development work. The experimental leader and rapporteur in the planning committee is School Inspector Märta Björsjö. Assistant experimental leader is Director of Studies Sture Svensson.

Content and organization of the activities

The work was started in the spring of 1973 and should be completed during the school year 1977/78. All twelve grades of the school are included in the activities.

Within the frame work of the theme of the center, "The basic communication skills", the greater part of the work is devoted to the students' reading at different school levels. Thus an attempt is being made to stimulate the students into reading, to develop their reading skill, their desire to read and their opportunities for choosing literature. In some cases, however, other aspects of skill in communication are being studied, e.g. the students' ability to communicate orally. In a couple of upper secondary school experiments the entire subject of Swedish is dealt with, without the specialization on reading. In all the experiments the approach used is influenced by the desire to try out and develop forms for individualization and cooperation. On some occasions, for example, one starts with a working unit other than the class - mostly larger - with the teachers organized in teams.

The majority of the basic school experiments are taking place within the area of the municipality. Thereby, it is hoped, the various experiments can eventually be coordinated practically and developed into a model to apply to all levels of the basic school. The experiments in the upper secondary school are being conducted in both the two and three year lines. Otherwise the reader is referred to the research program for activities during the school year 1974/75 (which can be ordered from the Gothenburg school administration).

Reporting

A special research program is drawn up for each school year, at the end of which an annual account is given. Special reports are presented successively by the different projects. All such programs, accounts and reports are sent out to the Swedish Board of Education, the schools of education and the further training bodies at our county education committees, and to departments of Education, Sociology and Swedish at the universities.

Following up the activities in schools with varying designs

In the spring term of 1974, a preparatory study was made of the activities at one of the schools in Gothenburg that has more of an open plan design. In the spring term of 1975 a corresponding study was made of two schools with a more open plan design and two schools built in the traditional way (grades 4-6). It is planned to let the continued study include both grades 1-3 and the students who participated earlier in grade 6 and who are now in the upper level of the basic school.

The studies are being led by the Educational Development Office at the Gothenburg Education Authority. They are being carried out by three people who are specially employed for the purpose and who are connected with the Department of Education at Gothenburg University.

Aims and methods

The studies form the initial stage of the evaluation of different school environments in Gothenburg that the municipal education authority has decided to make. The aim is to present elucidatory descriptions of the work and atmosphere at the schools. No attempt is being made at present to compare conditions at the two types of school. Further, social development is being emphasized rather than the students' knowledge and skills. Particular interest is being devoted to the interaction between different persons at the school and to the students' development regarding willingness to cooperate and independence. - The main methods used in the studies include observa-

tions, interviews, and questionnaires.

After the basic school - a follow-up

Range of the investigation

The investigation encompassed students living in the municipalities of Gothenburg and Styrsö, who were in grade 9 of the basic school at the turn of the month April-May 1973 (4,854 students).

Sources of information

Information about the students has been gathered from the headmaster's records, entrance committees and the school administration's register for the payment of study grants etc. Further, those students who have by the spring term of 1974 either not started or dropped out of the upper secondary school have been given a questionnaire that has been supplemented by telephone interviews.

Aims

- To investigate what happens with a year class of students leaving the basic school.
- To investigate what special factors can be related to the students' situation.
- To obtain information that can be used in the normal school planning work.
- To try to obtain information that can lead to special measures aimed at helping the students in choosing courses of study and careers.

Results obtained

Among other things, the study shows

- That 87.2 % of the entire year class applied for admission to the upper secondary school;
  2.7 % could not be admitted; 14.4 % later declined their places;
  4.8 % dropped out before the beginning of the spring term of 1974.
  Thus 65.3 % of the entire year class remained in the upper secondary school at the beginning of the spring term.
- That the average grades from the basic school vary strongly among students from different parts of the city. There are "high grade areas" and "low grade areas".
- That the frequency of applications to the upper secondary school is considerably greater within the high grade areas and that students from these areas apply to a greater extent to the three and four year lines.
- That students from low grade areas have to a greater extent declined the places in the upper secondary school offered to them.
- That there appears to be a connection between the parents' education and the students' grades and interest in further education.

- That technical and scientific education is dominated by boys, and that girls to the same extent dominate education in the humanities and social studies.

Continued follow-up

At the beginning of 1975 a questionnaire study was made of the students not attending the upper secondary school. The aim was to find out about their situation one and a half years after finishing the basic school.

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MALMÖ: EDUCATIONAL DEVELOPMENT IN THE MALMÖ REGION (MPU)

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Organization

Malmö Education Authority is the principal for the activities and sanctions the experimental program. The Director of Education in Malmö is chairman of the planning group, of which the chairman of the Education Authority is also a member. One of the assistant directors of education functions as the leader of experimentation as part of his appointment.

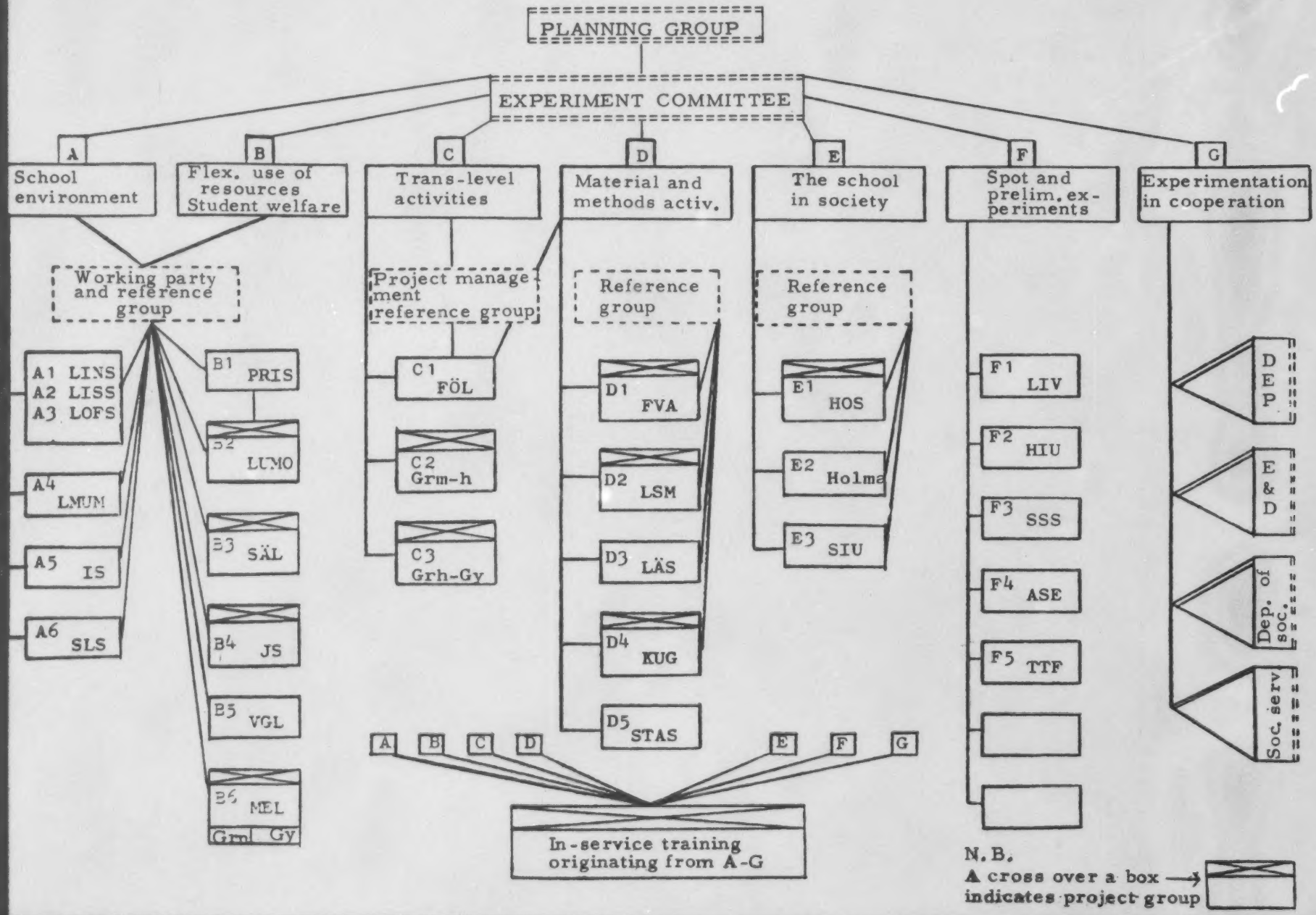
Between 1964 and 1970, the development center in Malmö received direct financial support from the Swedish Board of Education in accordance with its directives for the allocation of funds to educational development centers. Since the working year 1970/71, state financial support has been provided in other ways. Thus the Swedish Board of Education makes contributions to the Malmö Education Authority for the execution of certain projects. Further, by giving special research grants to the Department of Educational and Psychological Research (DEP) at the Malmö School of Education, the Board of Education makes it possible to conduct some research projects in close cooperation between the research department and the Malmö education authority.

The principal of the school of education and a representative of the DEP are members of the planning group. Hereby, and by means of the DEP researchers' participation in various research projects, an effort is made to bring about the "fruitful cooperation between educational theory and practical education" that according to the budget and finance bill of 1964 was to characterize the work of the educational development centers. Cooperation with the experimental and demonstration school forms an additional link in the interaction between the school of education and MPU (Educational Development in the Malmö Region).

A planning group with the following members is responsible for the activities:

The Director of Education in Malmö, Lars Kjellman, chairman
The Chairman of the Malmö Education Authority, Ulla Sandell
The County School Inspector, Erik Leffler
A representative of the Department of Educational and Psychological Research, Olof Magne
The Principal of the Malmö School of Education, Gunnar Bergendal
The Assistant Director of Education for Section U3, research leader, Olle Engquist

ORGANIZATION OF ACTIVITIES 1974-1975



PROJECT DESIGNATIONS AND ABBREVIATIONS

A1 LINS = Study materials in new schools
A2 LISS = Application of curriculum in open-plan schools
A3 LOFS = Premises for leisure time and school
A4 LMUM = Local production of study materials for special teaching
A5 IS = The language laboratory in language teaching
A6 SLS = System analysis of local school environments

B1 PRIS = Freer disposition of personnel resources in school
B2 LUMO = Curriculum development within the Malmö region - science and social studies
B3 SÄL = Special reading clinic
B4 JS = Modified courses of study in grade 9
B5 VGT = Varying group size and team teaching
B6 MEL = Models for student welfare by team work

C1 FÖL = Preschool - primary school in cooperation
C2 Grm-h = Transition between middle and upper school levels
C3 Grh-Gy = Transition between basic school and upper secondary school

D1 FVA = Freely chosen work
D2 LSM = Laborative approach in grades 4-6
D3 LÄS = Reading habits, reading pleasure, reading ability
D4 KUG = Consumer training in the basic school
D5 STAS = The station system in Swedish

E1 HOS = Contacts between home and school
E2 Holma = Integration of the daily activities of after-school centres and youth clubs at Holma School
E3 SIU = Social contributions in the teaching

F1 LIV = Study materials in adult education
F2 HIU = Aids in immigrant education
F3 SSS = Coordinated special education in handicrafts
F4 ASE = Level of aspiration and school achievement in English
F5 TTF = Lessons for free disposition

G: Experimentation in cooperation

DEP = Department of Educational and Psychological Research at the Malmö School of Education
E&D = Experiment and Demonstration School at the Malmö School of Education

Dep. of soc. = Department of Sociology, Lund University

Soc.Serv. = Malmö Social Services

Co-opted members: The Director of Studies for the work of the experimental and demonstration schools, Alf Kahnberg
The consultant within MPU, Sune Lindh, project leader for current projects.

The direct and continuous administration is led by an experiment committee consisting of 20 persons, representing municipal bodies, the institutes involved, different school levels and school forms, parents, personnel organizations, and the various projects.

Examples of projects

Applying the curriculum in open-plan schools (LISS)

This project, which was started in the school year 1970/71, is expected to be completed in the main during the present school year. The activities will be reported in stages and in cooperation with the VGT project. A special report committee with representatives of the Swedish Board of Education, the Malmö Education Authority, the Department of Educational and Psychological Research, teachers' organizations and parents' associations has been appointed for this purpose.

The work embraces the open-plan schools in the Malmö region and involves:

- development of work forms on the basis of the prerequisites given by the design of the open-plan schools;
- study and evaluation of the function of the open-plan schools.

The project is being financed from the Board of Education's grant to the Malmö School of Education under the heading MPU. - Project leaders: Bertil Gran, Olle Engquist.

The station system in Swedish (STAS)

The aim of the project is to individualize the teaching of Swedish by means of the station method. The work is being conducted at Slottsstadens School. - Four teachers plus a special teacher work in four adjoining rooms with three classes. The students circulate between four stations, at which the basic skills are trained. Reading occupies a central position. - Project leader: Inga-Britt Solér.

Models for student welfare by means of team-work (MEL)

Grades 7-9 of the basic school:

Four schools are taking part in the activities, the aim of which is to find practical local models for team work around the function of the form master/mistress, by

involving as many of the teachers in the upper level of the basic school as possible

giving the form teacher function a content that is in agreement with the directives of the curriculum
giving the form teacher as much time as possible together with his/her students in addition to the normal lessons.

A working party with representatives of the four schools are coordinating the activities, which partly fall within the framework of the work being done at the Swedish Board of Education in following up the curriculum in the basic school. - Project leader: Sune Lindh.

The upper secondary school:

The activities are taking place at Värnhem School. This new project is based on experiences of team teaching and a study of the school organization and the roles of those participating in the life of the school. The project aims at solving student welfare problems by means of more active cooperation between form teachers, individual teachers, counsellors, vocational guidance officers etc. - Project leader: Göte Magnusson.

Preschool - primary school in cooperation (FÖL)

The FÖL project is financed mainly by the Swedish Board of Education as a DEP project. Since 1973 it has been adopted as a pilot project in the Council of Europe's study of "Permanent Education". - Project leader: Birgitta Gran.

The aims of the FÖL project fall naturally into three project areas:

(1) Method-material experiments. Aim: to give the preschool a partially new content.
(2) Organizational cooperation experiment. Aims: (a) to develop forms for cooperation between preschool and primary school (grade 1). (b) To provide a foundation for the development of a non-graded school level comprising both preschool and primary school.
(3) Socio-psychological experiments. Aim: To define social handicaps and analyze the effect of supportive measures for under-stimulated children.

Reporting

A lively interchange of information takes place in various ways between MPU and the different interested parties (teacher groups, educational development centers, departments of educational research, the Swedish Board of Education etc.). Both within the Malmö educational development center (1964-1971) and within MPU (from 1971) the activities have been summarized and discussed in annual accounts that can be requested from the Education Office in Malmö. A survey book called "Pedagogiskt utvecklingsarbete i Malmö under tio år" /Ten years of educational development

work in Malmö/ has been published in the Swedish Board of Education's series "Utbildningsforskning" /Educational research/. This book also includes a list of more special reports linked to the work of MPU.

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Malmöregionens pedagogiska utvecklingsarbete. Årsredogörelser 1971/72, 1972/73, 1973/74, 1974/75. /Educational development work in the Malmö region. Annual accounts 1971/72, 1972/73, 1973/74, 1974/75./ Malmö: Education Office.

Pedagogiska utvecklingsblocket i Malmö. Redogörelse för försöksverksamheten 1964/65, 1965/66, 1966/67, 1967/68, 1968/69, 1969/70, 1970/71. /Educational Development Center in Malmö. Account of experimentation 1964/65, 1965/66, 1966/67, 1967/68, 1968/69, 1969/70, 1970/71./ Malmö: Education Office.

STOCKHOLM: PEDAGOGICAL CENTER

Pedagogical Center
Stockholm Education Authority
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S-104 35 Stockholm 23
Tel.: 08/33 57 33, 33 27 72, 33 33 39

General information

The Pedagogical Center is the Stockholm Education Authority's department for educational development work. It started work in 1967 with two sections, the Director's section and the section for the junior and middle level grades 1-6 of the basic school. On March 1, 1969, two more sections (the levels for grades 7-9 and the upper secondary school) were added, and on October 1 the same year a further section (for adult education). The Center reached its full planned capacity on April 1, 1970, when a section on vocational training was established.

The permanent staff at the Center consists of one school inspector (head), 5 heads of sections, one secretary, 7 office workers (two part-time) and one caretaker. The temporary personnel at present numbers 38 full-time or part-time experts, research assistants and office workers. Thus the entire staff amounts to 53 persons. In addition, some employment is given to university students and school psychologists, who carry out some of their examination studies at the Center.

The total annual expenditure of the Center is at present approx. 3.2 million Sw. cr. About 50 % of this sum is covered by the municipality and the remaining 50 % by the state. The state grants are paid directly to specific projects at the Center, not to its activities as a whole.

In general, it is teachers and other people employed in the city schools and the school administration that take the initiative in suggesting the projects that are conducted at the Center. After preliminary consideration within the Center, they are discussed in an advisory experiment committee of which the Director of the Local Education Authority is chairman. The other members are seven representatives of the Education Authority, the chief school inspector, ten representatives of different organizations for headteachers and teachers, and the professor of Education at the Stockholm School of Education. The final decision on project activities is made by the Stockholm Education Authority.

The research program

Since the Center is intended to serve the entire school system in Stockholm, the project work is naturally extremely varied. This is also made clear in the directives, in which it is stated

that the work done at the Center is to focus on the internal work of the school, new constructions and trials, in other words everything that can activate the teachers' use of different methods and help them in their work, and

that the work is to have a clearly practical orientation, with all school forms within the municipal school system being equally provided for.

Normally about 50 projects of varying scale are in progress at the same time at the Center. Only some of them will be briefly mentioned here. To make the summary more comprehensible, they have been grouped under a number of headings.

Teaching and school environment

The aim of the project called Basic school studies for adults is to investigate how the teaching given to adults with only elementary school education who are participating in municipal adult education functions. In the project New model for the introduction of school beginners results are compared from two treatment models for beginners deviating intellectually, emotionally and socially; namely, (1) placement in a preparatory class and (2) coordinated remedial teaching within the framework of the normal class. - The work being done in Environment, ergometry and industrial safety concerns occupation-oriented teaching and covers both mechanical measurements (noise, lighting etc.) and attitude studies. The project "Development of curricula for vocational adult education" is being carried out within the National Board of Education, which has assigned to the Center the sub-project Job analysis for telecommunication mechanics in the field of domestic electronics, the aim of which is to adjust the content of the training better to changes in the work. Within the group working on Research concerning labor market training a large number of projects are in progress dealing with the people participating in this form of occupational adult education, their attitudes towards the teaching and the results of the training. - The project The working conditions of students in the upper secondary school consists of a broad mapping of the working environment in the theoretical lines of the upper secondary school. In addition to the students' expectations of and attitudes towards school, questions concerning the school-home relation, diet and sleeping habits, homework etc. are also taken up.

Study materials

The project Reading training in the middle level aims at constructing a complete set of material for training reading in both normal classes and in va-

rious kinds of remedial teaching. One feature is that the texts are given in four versions with varying degrees of difficulty. - The project Study material specifications has been commissioned by the National Board of Education. The aim is to develop models for trying-out and evaluating study materials in the social studies subjects in grades 7-9. - Further, Attitudes towards self-instructional methods and The use of the teaching laboratory are being studied in various subjects and courses.

Drop-out problems

For several years now the upper level section has been working on the problems of interrupted studies. The sub-projects include The school background of drop-outs, Following-up students who have dropped out of basic school, The attitudes of upper level teachers towards school fatigue and interrupted studies, Students with school fatigue in the upper level of the basic school, and Evaluation of experimentation concerning students with school fatigue. - Investigations into study obstacles and interrupted studies are also being made by the section for occupational training. - In the project called Basic school studies for adults mentioned above, the following question is put: What are the distinguishing qualities of persons completing and dropping out of their studies with regard to attitudes towards the study situation, study results etc.

Immigrant questions

By request of the National Board of Education and OECD a study is being made in cooperation with the Immigrant Office of Preparatory classes at Rinkeby School, together with an inventory of diagnostic tests for immigrant teaching. Further, an attempt is being made to adapt a Swedish instrument for measuring the degree of difficulty of a text (lix) to the Finnish language, Determining the degree of difficulty of Finnish texts for school use. - The section for occupational training has started introductory studies of immigrants in occupational training. In The vocational-technical lines in the upper secondary school in Stockholm the investigations concern immigrant adolescents taking the basic vocational course at Västberga upper secondary school. Here the students' background, choice of study, study obstacles and future plans are mapped and the usefulness of Diagnostic Tests for Immigrants tested. Another study involves immigrant students who are already receiving vocational training in the upper secondary school. This illuminates among other things the students' background, choice of study, information prior to the training, attitudes towards the training, language difficulties and future plans. - Within the frame of labor market training studies are being made

of e.g. background factors in different immigrant groups, participants in the course, "Swedish for immigrants", the immigrants' attitudes towards programmed teaching, information given to immigrants prior to the teaching and immigrants participating in the course, Working life and education. In an investigation of Finnish participants in labor market training special attention is paid to the extent to which a deficient knowledge of the Swedish language hinders the immigrants in making the most of the vocational training. - In cooperation with the Stockholm Immigrant Committee, an interdisciplinary seminar is held at the Center. at which current projects concerning immigrant problems are discussed.

Experimental activities

In many cases the Center is responsible for the evaluation of the experimentation carried out in the schools of Stockholm. This is the case in e.g. School camp activities, The working environment and pupil welfare at the primary level (the so called Skarpnäck experiment), Experiment with typing in grade 6, in which above all the effect on the learning of Swedish is studied and Care of the school environment, which is an experiment with preventive measures against damage and theft in schools. - Experiments at the upper secondary level at Norra Latin School involves concentrating the school subjects to fewer terms and longer continuous work periods than is normal in the upper secondary school. The integration of subjects and the size of groups is also paid special attention. - The main aim of Experimentation at the Sveaplan upper secondary school for adults is to make the teaching more effective and adapt it to different student groups. At the Center a model for course evaluation has been developed, which is now used continuously in adult education. - In the Education Authority's Investigation of school meals, diet and nutrition, the Center is participating in the planning and evaluating various kinds of experimentation, such as self-service at school meals, different types of menu, course material for Parents' Days, questions relating to the timetable and "Well-being, better eating habits, better health".

Reports

A printed report series is published under the title "Pedagogiskt utvecklingsarbete vid Stockholms skolor" (Educational development work in Stockholm's schools). So far about 60 issues have been published, with an average circulation of 1,000 copies.

Work reports (stencilled) are issued by the various sections. These mainly state the present situation, give partial reports on projects, and

function as working material for the continued project work. In addition information sheets are issued by the sections, giving briefer project information. They are printed in rather large numbers and distributed primarily to all staff (teacher groups etc.) at Stockholm schools involved in a particular project.

Furthermore, the regular channels of information of the school administration, such as the newspaper "Skol-Stockholm" (School-Stockholm), "Meddelanden till skolorna" (Information to schools) and the annual reports of the local education authority are also used. Naturally direct information is also given to the parties concerned at study days, head-teachers' staff meetings and various kinds of conferences.

Appendix:

A selection of projects at the Pedagogical Center, Stockholm, 1975

Diagnostic tests in reading and writing for grades 1-3	Lars-Magnus Björkqvist Birgitta Järpsten
New introductory model for school beginners	Elisabeth Gahnström Maud Skerfving
Working environment and student welfare in grades 1-3 (evaluation)	Herbert Davidson
Reading training in grades 4-6	C H Björnsson Herbert Davidson
Mapping of handwriting	C H Björnsson
Typing in grade 6 (evaluation)	Herbert Davidson
Retrospective comparisons	C H Björnsson
Determining the degree of difficulty of school texts in Finnish	C H Björnsson Eila Bromme
Well-being, better eating habits, better health	Sven Martinsson Herbert Davidson
Routines for the evaluation of school camps	Sven Martinsson Jan Häggkvist
Choice of study materials and study material specifications	Jan Häggkvist
Diagnostic tests and material for immigrant teaching	Sven Martinsson Birgitta Järpsten
Interrupted studies in grades 7-9	Ingemar Emanuelsson
Students with school fatigue	Sven Martinsson Jan Häggkvist
Working conditions of students in the upper secondary school	Bengt Ahnmé Gun Sjöberg
Experiments at the upper secondary level at Norra Latin School	Bengt Ahnmé
Research concerning a labor market training (41 sub-projects)	Bengt Gustavsson Birgitta Ahlkvist
Interrupted studies in labor market training	Bengt Gustavsson Björn Lagerdahl
Environment, ergometry and industrial safety	Bengt Gustavsson Mats Wiman
Job analysis for telecommunication mechanics in the field of domestic electronics	Kerstin Lannerlöv Bertil Thorslund
Immigrants in vocational-technical lines at the upper secondary school	Reino Tornberg Magnus Carlsson
Elementary nursing training in the upper secondary school	Kerstin Pålsson Jan Olsson
Experimentation at the Sveaplan upper secondary school for adults	Birgit Hellbom
Basic school studies for adults	Birger Bromsjö Lena Borgström

PART III

THE SWEDISH COUNCIL FOR SOCIAL SCIENCE RESEARCH

The Swedish Council for Social Science Research
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S-113 46 Stockholm
Tel.: 08/15 15 80

Organization

The National Council for Social Science Research consists of three divisions - one for social science research, one for legal research, and one for psychological and educational research. The last-named section, which prior to 1959 was independent and was called the National Institute of Psychology and Education, has its own secretary. The section has three members representing the educational side and three representing the psychological side.

Tasks

The task of the Swedish Council for Social Science Research and its section for psychology and educational science is

to follow developments within its field of research and maintain close contact with researchers and scientific institutions and with business organizations in the areas that can be affected by the activities of the Council

to support research projects that are of particular importance for the development of the science and when necessary to take the initiative in promoting such projects and their application

to grant funds to institutions and individual researchers for the purchase of apparatus and material, for the payment of scientific personnel, for covering the cost of travel or for guaranteeing researchers an income during their research work

to promote cooperation with other countries, particularly the Nordic countries, within the field of research.

Activities

The major part of the section's activities consists of granting funds to research projects. Since 1966 the allocation of grants is prepared by members of two priority groups, one for psychology and one for educational science. The final decisions are made by the members of the section on two occasions each year (the spring and autumn allocations).

At present the Research Council maintains three professorships with associated researcher groups and 17 special research appointments. Within the area of the behavioral sciences there have been since January 1, 1974,

the following research appointments:

industrial psychology with a social psychology orientation
perception and cognition psychology
societal communication
questions concerning under-developed countries and the environment, seen from the point of view of educational and psychological science
developmental psychology, particularly child development
the study and learning situation of adults.

The Research Council - and thereby also the section for psychology and education - has the primary responsibility for basic research in the field of social science research. The educational research that is financed by the section for psychology and education is a large part of the basic research included in the total R&D work on upbringing and education that is conducted in Sweden.

Since 1971 the section has actively tried to influence the trend of research done in the behavioral sciences by indicating certain problem areas as being of special priority. The priority list, which is expected to continue to apply during the next few years, covers the following areas:

(a) developmental psychology,
(b) social psychology,
(c) environmental research (psychological studies of conditions at work, in education, in the home and during leisure time),
(d) research into psychological therapy,
(e) psychological studies of child-parent relations and
(f) psycho-linguistic research.

Another part of the work of the Research Council consists of promoting contacts. At symposiums and conferences, researchers in the field of social science are confronted with those making practical use of the research in the same field. The council considers a more active contact between researchers and consumers to be important, so that the researchers can to a greater extent than hitherto try to assess the practical consequences of their research results.

As was stated above, the council also supports publication, both by contributions to scientific journals and secondary publications and by paying some of the printing expenses for scientific works.

The section for psychology and educational science controls at present 43 % of the grant appropriation of the Council for Social Science Research (a total of 15.2 million Sw. cr. for 1975/76). In recent years a third of the section's grant appropriation has been allocated to researchers in education, while two-thirds has gone to researchers in psychology.

During the last five budget years, the following amounts have been granted to the field of educational science:

Year	Grants to the field of educational science (Sw.cr.)	Proportion of the Council's total appropriation (%)
69/70	930,000	17.0
70/71	960,000	13.7
71/72	1,622,000	18.8
72/73	1,552,000	16.8
73/74	1,635,000	15.9
1969/70-73/74	6,699,000	16.5

The more large-scale educational research projects supported by the Council during this period include the so called Malmö project (Professor Torsten Husén), a longitudinal study of choice of education, occupational adjustment, social background etc. The project, which has received 499,000 Sw. cr. during the last five years, consists of a follow-up of the students in grade 3 of the Malmö schools in 1938. Another example: At the department of educational research in Umeå research is being done under the leadership of Professor Sten Henrysson on problems of test theories, including the so called criterion-related tests. Between 1969 and 1974 this research has been granted 426,000 Sw. cr. by the Council.

Otherwise the reader is referred to the accounts given by the various departments of educational research elsewhere in this compendium. Many of the research projects described are supported by grants from the National Council for Social Science Research. This applies above all to the projects of the basic research type. The extensive financial support given by the National Board of Education and the Office of the Chancellor of the Swedish Universities to R&D activities within the field of education make this support of research into the development of theories and methods all the more important.

THE NATIONAL BOARD OF EDUCATION (NBE)

Office for Educational Research
and Development, Bureau L3
National Board of Education
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S-106 42 Stockholm
Tel.: 08/14 06 60

Organization

The office for educational research and development work (Bureau L3) is divided into three sections. Section L3:1 deals with questions concerning research. In addition to the director and head of section, the staff working directly with administrative research questions consist of one executive officer, three experts (two project secretaries and an information secretary) and three clerks.

Tasks

The unit is to
assign the National Board of Education's research and development commissions to scientific institutions
contribute to the development of the country's production resources for R&D that are important for the NBE's field of activities and
follow developments at scientific and other institutions and organizations both in Sweden and abroad.

Assignment of the NBE's R&D projects

The unit initiates and promotes R&D that is important for the school by making inventories of needs both within and outside the NBE by means of e.g. analyses of bills, parliamentary statements, the debate in the mass media and the educational press, conferences, symposia, questionnaires, discussions in the educational committees associated with the NBE etc. By means of projects or part-projects of a documentation or synthesis nature and by mapping carried out within curriculum projects, information is gathered and compiled that can provide a basis for decisions on the long-term planning of R&D work. The foundation provided by the unit is discussed in decision groups for the different sectors of R&D, so called program groups, which are composed of the heads of the NBE bureaus most closely involved.

Continuous planning and coordination of the work within the research projects is based on outlined plans for research projects for which budget

estimates have been submitted (about 1 1/2 years before the year in which the work is planned to start) and more detailed plans prior to the allocation of resources (about six months before the year in which the work is to start). Points of view on the plans are obtained from a consultant group consisting of three researchers.

The implementation of commissioned research work is followed continuously by means of the projects' working plans, accounts of activities, newsletters, reports and working memoranda. For each field of interest one person is appointed to follow the project work and convey to the project information concerning developments within that field of interest. Two project secretaries within L3:1 follow groups of projects, e.g. projects concerning the teaching of Swedish, teacher training, immigrants and other minorities. These project secretaries and the contact persons mentioned above visit projects and meet those involved at conferences held for several projects at the same time.

Many channels and media are used to disseminate results and experiences of R&D within the NBE, the school system and teacher training. During the autumn of 1972 a survey of these was published under the title, "The results of school research - dissemination and feedback" (Svedish only). Some examples of means by which results are spread are

information to teacher training through teachers in pedagogics and methodology at the schools of education and the universities

dissemination to in-service training for teachers through the NBE's in-service training office, L2, via training material, participation in projects during in-service training courses, study days etc.

publication of information sheets about the projects and articles in "School Research Newsletter"

circulation of reports and bulletins

publication of pocket books and monographs

annual press conferences at which current research is presented

compilation of current and completed educational research.

Development of production resources for R&D

The unit works for the establishment and rational utilization of basic resources and supporting functions for R&D and for the improvement of R&D personnel's training. A project handbook facilitates the routine administration. The unit also encourages internal contacts between the departments and between projects working within the same problem area. The unit publishes an annual catalogue of projects within educational research.

International contacts

The research and development office follows developments at scientific and other institutions and organizations both in Sweden and abroad that are doing work in fields that are important to educational research. This is done by studying the literature and periodicals, international study visits and participation in international conferences etc.

Outline of major research areas

The following table illustrates the development that has taken place in the allocation of funds in broad outline (projects conducted at research institutions for the behavioral sciences).

Program	Expenditure of funds 1973/74 th. of S.cr.	Allocation of funds 1974/75 th. of S.cr.	Allocation of funds 1975/76 th. of S.cr.
Research and development work for			
- pre-school	996	1,280	1,477
- comprehensive school	4,243	3,590	3,745
- upper secondary school	655	920	1,282
- adult education	1,570	2,158	3,068
- teacher training	2,009	1,309	1,893
- general R&D	3,837	3,265	3,165
Planning, information, follow-up etc.	1,288	1,962	2,560
Total	14,598	14,484	17,190

R&D outside the departments of education

In the present survey report, the departments of education at the schools of education and the universities themselves describe their current projects, and there is consequently no reason to describe that work in any detail here. But educational research financed by the National Board of Education is also conducted outside the departments of education, and a few examples of this can be of interest as additional information.

Extent of activities

During the financial year 1973/74, the National Board of Education financed 9 such projects. The table below shows which institutes are responsible for these projects and how funds have been allocated.

Project	Institute	Allocation of funds
Adjustment, behavior and achievement - the Örebro project	Department of Psychology, Stockholm University	379,000
The classroom as a social system	Department of Sociology, Lund University	96,300
Social segregation in the comprehensive school	"	126,000
Recruitment, catchment activities, coordination in adult education	Department of Sociology, Uppsala University	219,000
The linguistic status of sign language	Department of Linguistics, Stockholm University	67,000
Swedish as target language	"	45,000
Speech defects and speech training in the hard of hearing and deaf	Institute for Speech Transmission, Stockholm School of Technology	37,000
The reading of literature in the upper secondary school	Department of Literary History, Gothenburg University	38,000
Teaching science in grades 1-6	Department of Physics, Mölndal School of Education	310,800
Total		1,318,100

Some examples of important projects

Since 1965 a longitudinal research project entitled Adjustment, behavior and achievement - the Örebro project has been underway at the Department of Psychology of Stockholm University. It is an interdisciplinary research program for studies of the adjustment of individuals from school age up to adulthood.

In the project students in Örebro, born 1952 and 1955, are being followed from the year they were in the sixth and third grades of the comprehensive school respectively. A considerable amount of data is now available from the data collections made by the project. The information concerns, e.g., family relations and adjustment, the process of choosing courses of study and careers, the transition between school levels and interrupted studies, creativity, grades and social differentiation, and criminality.

Another research project being conducted at an institute outside the educational area concerns the linguistic status of sign language.

During the greater part of the 1900's, the official method of communication in the teaching of the deaf has been the so-called oral method. The

child is trained to lip-read and those gravely hard of hearing are given hearing training in order to make maximum use of remnants of hearing.

Sign language and the finger alphabet are not prescribed in the curriculum but have become increasingly common in recent years. The Society for the Deaf is now demanding that the purely oral method should be expanded into the so called total communication method, which means that one speaks and uses sign language at the same time. In 1971 the National Board of Education appointed a working party with the task of deciding the role of sign language in the teaching and the possible introduction of the total communication method. It soon proved, however, to be a difficult problem to solve, mainly because of the lack of knowledge as to the composition of sign language.

Since no description has been made of sign language, it is impossible to say anything about the way in which it influences the child's language learning or about how the child's intellectual and emotional development otherwise is affected. Nor can any conclusions be drawn concerning the relationship between sign language and Swedish, which means that the purely linguistic prerequisites for the total communication method cannot be assessed. These are some of the reasons why the National Board of Education is financing the sign language research.

Dissemination of information

Information about projects outside the departments of education is disseminated in the same way as for other projects financed by the Board of Education. For example, the projects are presented in the NBE's "School Research Newsletter" and the biannual abstract catalog "Educational Research in Sweden". For the past few years NBE projects have also been presented in the book series "Utbildningsforskning" /Educational Research/. The Örebro project, for example, has here presented several sub-studies.

THE BANK OF SWEDEN TERCENTENARY FUND

The Bank of Sweden Tercentenary Fund
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The Bank of Sweden Tercentenary Fund was established following a decision by the Swedish Riksdag in April 1962. On the suggestion of delegates in the Bank of Sweden, 250 million Sw. cr. were set aside from the Bank's profits in 1961 in the form of bonds from the Bank of Sweden's holdings into a special jubileum donation. (In May 1974 the Riksdag decided to grant a further 100 million Sw. cr. to the Fund.) The suggestion was that the yield should be used to promote and support scientific research associated with Sweden. The donation was occasioned by the desire of the delegate's to draw attention to the Bank's 300th jubileum in 1968 and at the same time serve important national ends. The Bank of Sweden, which is the oldest central bank in the world, has throughout been owned by and associated with the Swedish parliament.

Grants to educational research: General picture

Since initiating its activities in 1965, the Bank of Sweden Tercentenary Fund has up to the end of 1974 granted a total of 8 million Sw. cr. to educational research. This is 5 per cent of the total appropriations made. The size of the grants in different years can be seen from the following table:

Year	Grants to educational research (Sw. cr.)	Proportion of total appropriations (%)
1966	393,000	2.1
1967	138,000	1.0
1968	888,000	5.3
1969	1,249,000	7.0
1970	588,000	3.0
1971	1,097,000	5.9
1972	696,000	3.7
1973	1,470,000	8.0
1974	1,628,000	9.0
1966-74	8,147,000	5.0

One of the norms of the Fund's granting policy is that projects illuminating the consequences for individuals and society of economic and social development and discussing ways of avoiding or limiting negative consequences should be given high priority. This naturally means that, together with other behavioral and social sciences, educational science occupies a central position in the activities of the Trust.

Mostly the Fund functions as a body for the distribution of resources, to which researchers send their applications for consideration and evaluation. The Fund also takes the initiative sometimes in initiating research in areas it is considered important to have investigated.

Project examples

Descriptions are given below of educational research projects that are wholly or partially financed by the Bank of Sweden Tercentenary Fund.

One large-scale project that has been granted appropriations is "The International Project for the Evaluation of Educational Achievement" (IEA), led by Professor Torsten Husén, Stockholm University. Between the years 1968-72, this project has received grants amounting to 2 million Sw. cr. The project consists of a comparative study of the teaching and educational achievements in the schools of 19 countries. Results have been published for nature-oriented subjects, the understanding of literature and reading.

Another big venture in the field of education is "Comparative analyses of goals and processes in school systems", which is led by Professor Urban Dahllöf at Gothenburg University. The project aims at an analysis of the effectivity of various kinds of differentiation within school classes and in particular the significance of student grouping.

Among other educational projects financed by the Fund can be mentioned the work being done by Professor Karl-Georg Ahlström, Uppsala University, and Arne Risberg, civil engineer, with self-instructional methods for training the hard of hearing in speech perception. During 1969-71 Professor Wilhelm Sjöstrand, Uppsala University, has been granted funds for the project "Freedom and equality as basic educational concepts in Western democracy from the end of the 18th century".

Professor Åke Bjerstedt, Malmö School of Education, has been granted funds for the project, "Cooperation, independence, mental agility: Some aspects of being prepared for the future as an educational goal".

During more recent years a grant has been given to a study of the Swedish syntax used by hard of hearing children, for the purpose of developing the educational methodology and thus improving the teaching of Swedish to these children. The project is led by Professor Karl-Georg Ahlström.

A project under the leadership of Egil Johansson, Ph. D., Umeå University, concerns literacy and general education in Western Norrland, 1750-1860. In the project a study is being made of the development of literacy on the level of the individual and its relation to social changes, changes in the dispersion of occupations, geographical moves etc. The study is making use of material that is almost unique to Sweden (and Finland), consisting of

the visitation registers of the Church.

The Fund has also financed two educational research projects within the large international future study called "Plan Europe 2000" that has been initiated by the European Cultural Foundation. One project is led by Professor Eve Malmquist and aims at analyzing the opportunities and needs for development within European school research prior to the 21st century. The other project, led by Professor Karl-Georg Ahlström and Docent Nils-Eric Svensson, concerns a mapping of developments within educational technology and an analysis of how it can be utilized for the realization of educational goals during the next 30 years.

During 1973 a project called "Adult education as a field of knowledge and application" was started. The project is led by Kurt Gestrelius at Malmö School of Education and has as its aims (1) to demarcate and describe adult education as a sphere of knowledge or study, (2) to map and describe the tasks with which those holding appointments in adult education are faced, (3) to use systematic educational planning to construct material that can be used directly for training those working in adult education and (4) to develop methods and organizational forms for a continuous exchange of information between areas of knowledge and fields of application and in connection with this to draw up examples of working patterns for systematic educational planning.

Rune Flinck at Lund University has been granted funds for a project dealing with two-way communication in correspondence teaching. The research encompasses three series of experiments, which attempt to provide answers to the following questions: (1) what scale and design of postal contact (by means of correspondence assignments) between teacher and student is most effective from the aspects of both learning and attitudes? (2) Does the opportunity of making telephone contact between teacher and student lead to greater effectivity in learning and attitudes towards the teaching? (3) How are the results of the teaching affected by giving the students the opportunity of having supplementary teacher-led instruction? - The experiments will be conducted in cooperation with the European Home Study Council in Europe, where correspondence schools have willingly placed themselves at the disposal of the project team. Parallel with this series of experiments a theoretical, systematic analysis of the methods of correspondence teaching will be made, in an attempt to anchor the methods in the theories of teaching and learning.

In 1974 Karl-Georg Ahlström at Uppsala School of Education was given a grant for the project "Working environment for visually handicapped people". During the past decade the labor market for people with defective vision has

become steadily worse. The crafts and trades that before made up the main occupation of the visually handicapped have been gradually excluded from the labor market as a result of rationalization and technical developments. In many jobs the technical side of the production makes such demands on the employee's ability to assimilate and process information that capacity of the visually handicapped falls short in this respect. The attempts that have been made to tackle the problem by means of financial contributions to work assistants and the subsidizing of salaries for the visually handicapped have proved to be ineffective. The resources that have been put aside for special working aids and working place adaptations for visually handicapped workers have hardly been touched; there is a lack of techniques and knowledge for using the resources. - The purpose of this project is to develop suitable techniques for designing work suitable for people with defective vision. Special attention is being paid to the aspects of communication that are most critical for the visually handicapped. - The project is intended to result in: (a) techniques based on cognitive psychology and information theory for job analyses, (b) suggestions for the changes in normal job design, including necessary aids, that are required if various jobs are to be open to the visually handicapped, (c) distribution of the results in a popular version to teachers during the initial period of adjustment, employers, technical educational institutions and organizations for the handicapped. - A first phase is concentrated on the development of theories and techniques, a second on application experiments and a third on the dissemination of information.

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Organization

There are three working groups within the R&D unit of the office of the Chancellor of the Swedish Universities (UKÄ). The group for research projects deals with questions concerning research that is relevant to higher education in Sweden. In addition to the head of the unit and group leaders, the personnel working directly on research administration are at present one project secretary, one shorthand typist and a clerk (part time). The R&D unit, which employs a total of 17 persons, was established in 1969 and its activities with research projects has been underway in its present form since 1970.

Tasks

The R&D unit and its working group for research projects is to (a) initiate and follow the implementation of research, (b) contribute to the development of resources for the production of research that is essential to the educational function within UKÄ's sphere, and (c) follow developments at institutions, both scientific and those important in other ways for the work, in Sweden and abroad.

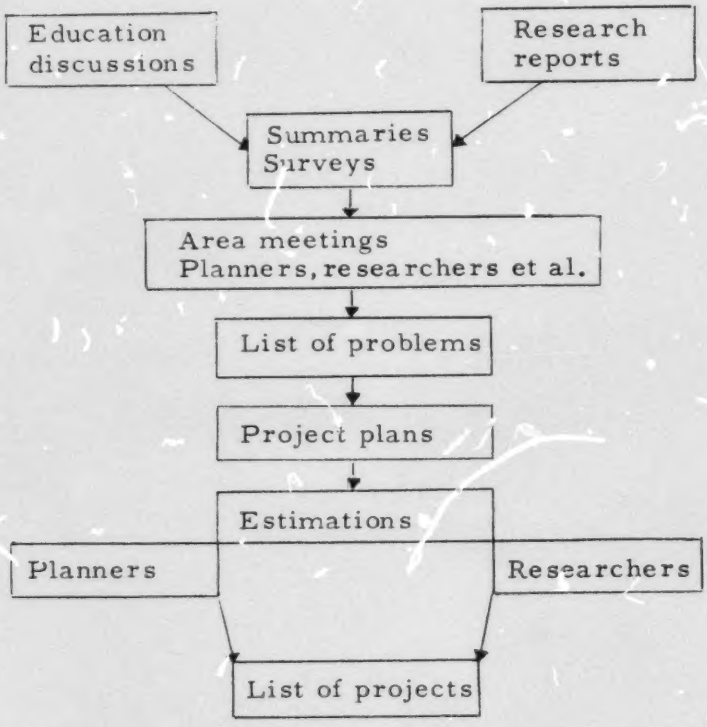
Initiate and follow research

UKÄ has at its disposal for research and development work a special financial grant, Educational development work at the universities etc. The activities encompass three separate but related main forms, namely research projects, development projects linked to institutes in the form of organizational experiments etc., and the training of teachers and other personnel.

In this work central and local efforts are balanced so that organization and personnel development (experiments with new forms of activities, in-service training for teachers etc.) is planned and conducted through different institutes, while the main task of central R&D efforts is to set and analyze problems, to inform and thereby stimulate renewal, development and co-ordination.

In order to guide the planning and selection of research projects, UKÄ

Course of planning for UKÄ's research projects



has started work on a systematic inventory and definition of problems within the university and college sphere.

One of the main items in the course of planning (see figure) has here been "problem area meetings" lasting one or two days, at which researchers, planners, teachers, students, administrators and other interested parties have met to discuss and specify what R&D assignments are important in the light of current published surveys and their own experience. The minutes from these meetings are later published together with the conference agenda written in advance. So far the following themes have been dealt with at these area meetings:

- The organization and work-forms of the teaching
- Evaluation; checking functions and results
- Higher education and the labor market - structure and relations
- Forms of activity in researcher training
- Evaluation of a possible implementation of reforms suggested by the 1968 Commission on university education (U 68)
- Higher education about the labor market
- University studies in work-groups

Further symposia are planned. One has been held in September 1975, for example, in cooperation with the Council of Europe on "strategies for research and development in higher education".

Another main item is the so called survey project, in which experienced researchers are given financial backing for surveys and analyses of international theory-formation concerning different aspects of higher education. The survey projects that have been started so far this year largely concern questions of university organization. Together with the problem area meetings, these survey projects should provide a better basis for the planning of the research program concerning higher education.

At present two different groups of assessors are engaged for selecting among and putting in order of priority proposed research projects. One group consists of researchers and the other of representatives of planners and teachers in the field of university and college education.

The implementation of the research program is followed by examination of the project's plan of work, memoranda, progress reports, information bulletins and final reports.

The dissemination of results and experiences from the research program to different working units in UKÄ and at the universities takes place by means of

in-service training for teachers and other staff
departmental projects and other development work
information sheets from UKÄ and also from the universities' units for educational development work
conferences, seminars and personal contacts
services to press, radio and TV
problem area surveys published in a special report series and
summaries of current and completed research that is important the educational field.

Develop resources for relevant research production

UKÄ's R&D unit tries to stimulate and bring about good conditions for relevant researcher training and for access to and rational utilization of basic resources and supportive functions that are suitable for research activities. The working unit also seeks to improve contacts between research institutes and between related projects and to develop an information and documentation service relevant to the research institutes involved.

Follow developments at foreign and Swedish institutes that are important for the work

This part of the work includes studies of journals and other literature, study trips and participation in conferences both in and out of Sweden, literature searches in various problem areas (in connection with certain research projects) for presentation in literature surveys with comments and also by means of news service for planners and researchers (the UKÄ series "the R&D bulletin") dealing mainly with relevant foreign research, planning and development work.

Research areas

In order to facilitate the planning and utilization of results of UKÄ's research projects, they are divided into programs, which at present consist of four separate problem areas. The dividing lines are naturally fluid. In principle all questions relevant to research in the university and college sector can be referred to one of these problem areas.

Thus the research financed by UKÄ does not aim only at developing and trying out new methods for teaching or the checking of results, but also - and not least - at developing methods for the analysis of both the structure of the university sector and its relation to its environment and the often very complex goals for its activities. This latter, more directly policy-oriented research has its greatest importance in the contribution it makes to giving not only politicians and planners but also teachers and students a more penetrating and differentiated view and understanding of problems.

The table below shows the distribution of costs within the financial appropriation 'Educational development work at universities etc.' as far as research projects are concerned, as shown by the distribution between program.

Distribution of costs, research projects

Program (problem areas)	Consumption 1972/73		Consumption 1973/74		Consumption 1974/75		Allocation 1975/76	
	thous. Sw.cr.	%	thous. Sw.cr.	%	thous. Sw.cr.	%	thous. Sw.cr.	%
Higher education and the labor market - structure and relations	415	25	262	16	553	31	646	34
Organization and work-forms of the teaching	460	28	580	35	493	27	355	19
Evaluation	575	35	659	40	509	28	664	35
Development of the R&D organization	200	12	149	9	245	14	235	12
Total	1 650	100	1 650	100	1 800	100	1 900	100

A more detailed list of projects, including among other things descriptions of the new projects for 1975-1976, is to be found in the UKÄ series, "Pedagogisk Utveckling" (Educational Development) 1975:3.

As can be seen from the table below, the research program has been greatly extended as far as the cooperation with different research institutes and subjects is concerned.

The distribution of funds between different participating university subjects in the years 1972-73, 1974-75 and 1975-76 can be seen from the following table:

Subject	1972/73			1974/75			1975/76		
	No. of projects	Thous. Sw.cr.	%	No. of projects	Thous. Sw.cr.	%	No. of projects	Thous. Sw.cr.	%
Economic history				1	50	3	1	75	4
Business economics	1	60	4	1	120	8	2	70	4
Geography				1	40	3	1	95	6
History				1	107	7	1	100	9
National economy				2	150	9	2	240	14
Educational science	9	875	60	8	704	44	7	520	30
Psychology	2	160	11	2	145	9	2	285	16
Sociology	4	355	25	3	219	13	2	64	4
Political science				1	60	4	3	216	13
Total	16	1 450	100	20	1 595	100	21	1 665	100

Thus the number of university subjects participating in this work has greatly increased during recent years. Three years ago the behavioral science subjects had almost the entire sum at their disposal. In the 1975/76 research program they make use of half the resources.

This widening of the research program originates from the assumption that the planning basis for higher education should be many-sided and interdisciplinary. The concentration of the R&D work on questions of educational science that has been traditional in the education sector has partly been abandoned in favor of paying greater attention to questions of university organization and questions concerning the function of higher education for the individual and society. In general it can be said that this shift in the content of the research program has led to more projects now working with educational problems than with teaching problems.

Therefore a number of the subjects participating in the program are primarily from the field of social science, such as educational science, psychology, sociology, political science, business economy, political economy, economic history. Examples of project titles are Education and the labor market, The university as an organization: system and environment, U 68 - a study of the development of the university reform, Basic concepts in political economy, and The effect of the educational reforms in creating equality - a comparison of two generations. Many of these and other projects are of particular relevance for recurrent education.

Local development work

The greater part of the appropriation for educational development work in the university and college sector goes to the development work done at the universities and colleges themselves. At every university and college of reasonable size there are educational development units that are led by consultants in educational science. An important part of the local development work is to stimulate local development initiatives on the level of the faculty and department. Each local development unit allocates resources to projects linked to the department in question and there are often advisory groups or reference groups that participate in preparing applications. The contents of the local projects have moved increasingly from narrow didactic/methodological aspects, e.g. the production of study materials, to questions concerning the organization of institutions and the planning of education.

The local development units are also responsible for local in-service training for teachers and for the training of other personnel. Usually there is a special consultant in educational science who is responsible for this internal education. The development units are formally associated with the administrations of the universities and colleges.